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MEDICAL BOTANY:

OR,

HISTORY OF PLANTS

IN THE

MATERIA MEDICA

OF THE

London, Edinburgh, & Dublin Pharmacopœias.

ARRANGED ACCORDING TO

THE LINNÆAN SYSTEM.

VOL. II.

ILLUSTRATED BY ONE HUNDRED AND THIRTY-EIGHT
COLOURED PLATES AND A PORTRAIT OF LINNÆUS.

LONDON:

PRINTED FOR E. COX AND SON,

ST. THOMAS'S-STREET, SOUTHWARK:

SOLD ALSO BY

J. CALLOW, PRINCES STREET, SOHO; HARDING, ST. JAMES'S STREET; T. AND
G. UNDERWOOD, FLEET STREET; HIGHLEY, FLEET STREET; SHERWOOD,
NEELY, AND JONES, PATERNOSTER ROW; SIMPKIN AND MARSHALL, STA-
TIONERS' COURT; ANDERSON, SMITHFIELD; BURGESS AND HILL, WINDMILL
STREET; J. COX, NO. 11, BERNERS STREET, OXFORD STREET; P. BROWN,
EDINBURGH; HODGES AND M'ARTHUR, DUBLIN.

1822.



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Copaifera Officinalis

Medical Botany.

73. COPAIFERA OFFICINALIS.

Copaiba.

Resina Liquida.

Class X. DECANDRIA.—Order I. MONOGYNIA.

*Generic Character. Calyx none. Petals four.
Legume ovate. Seed one, with an ovate arillus.*

THIS handsome tree is a native of South America, growing chiefly in Brazil and some of the neighbouring islands, it is also met with in Terra Firma amongst the Tolu and Peruvian balsam-trees.

The Copaiva-tree is of considerable height, branching towards the top and covered with a brownish coloured bark. The leaves are large and pinnate, consisting of four pair of

ovate, pointed, shining, entire, velined pinnæ, with a terminal one, and placed alternately on short footstalks. The flowers are in terminal spikes, alternately branched: the petals are oblong, acute, concave and spreading; the filaments slender, incurved, rather longer than the corolla, and supporting oblong, incumbent anthers; the germen is roundish, compressed, and on a short pedicel; the fruit is an oval, two-valved pod, containing one egg-shaped seed.

The Copaiba is procured by making deep incisions through the bark and wood of the tree, near the base of the trunk; from these wounds the liquid resin flows freely, and is collected in convenient vessels. The oldest trees afford the best Copaiba, and these are generally wounded two or three times in the year. The young ones contain a considerable quantity of juice, but it is crude, and watery, comparatively inert. As the juice flows from the tree it is limpid and colourless, but by keeping it becomes of the consistence of oil, and of a yellowish colour, but still preserves its transparency: in its natural state it never assumes the solid form, though by artificial means it may be converted into a solid resin: there is an inferior sort to be met with, which is very thick and opaque, containing but little of its fragrance, this is procured by boiling the bark and branches of the tree in water; occasionally it assumes these properties from adulteration.

Genuine Copaiba has a fragrant, rather agreeable odour, with a bitter, subacid, warm, somewhat aromatic, very durable taste. It is soluble in alcohol, but perfectly insoluble in water, it may, however, be formed into emulsions with the latter, by the aid of some mucilaginous fluid, or egg, and honey: or by

the addition of a few drops of liquor potasæ, it may be very readily diffused through water, and this is frequently the best mode of administering it in some affections of the urinary organs. Distilled with water it affords nearly half its weight of white, fragrant essential oil, which becomes yellow by age. It yields also an empyreumatic oil of a darker colour and less fragrant odour, when distilled without the addition of water, leaving in the retort an inodorous and nearly insipid resin: the proportions in which these different constituents exist, are subject to considerable variety. It yields no Benzoic-acid, hence the impropriety of calling it a balsam, which term is only applicable to such resinous substances, as contain Benzoic-acid.

The medical virtues of Copaiba are, stimulant, diuretic and slightly aperient. It was once considered a very efficacious medicine in pulmonary complaints and was used indiscriminately, without any attention being paid to the symptoms present, and the peculiarities of the case: but the lungs when diseased are seldom in a state to admit of the exhibition of this medicine; for it is injurious when there is either hæmorrhage, inflammation or congestion present, or even when there is any disposition to such complaints; and in such affections we generally find these organs in one or other of these conditions; and as Copaiba stimulates the heart and arteries it would occasion an aggravation of the disease. Its chief use is in diseases of the urinary organs, and especially those of a chronic nature, for it would be improper in any complaint, where active inflammation was present. In the cure of gonorrhæa it sometimes proves of considerable advantage, not in the first stage, for it would then only aggravate the disease, by increasing the in-

flammation; but it is when the ardor urinæ has left the patient, or is but slight, that the Copaiba is to be administered, where the discharge is kept up from relaxation of the vessels, hence, requiring some stimulus to cause their contraction; the dose should be 20 drops, three or four times daily: the same plan may be adopted in Gleet, Leucorrhœa, &c.: in irritable states of the bladder it should be combined with Liq. Potassæ in the form of an emulsion. It will sometimes produce good effects upon chronic rheumatism, paralysis, &c. Cutaneous eruptions have sometimes succeeded to its exhibition, but this is not common, and depends on peculiarity of constitution; they very soon subside upon the discontinuance of the medicine. In obstinate gleet, a bougie besmeared with Copaiba introduced into the urethra will materially assist in the cure; in hæmorrhoids it is said to be an useful remedy. The most agreeable way of taking it is in an emulsion made with honey or egg; some prefer taking it on a lump of sugar. Dose from gtt. x to ʒfs.



Tribulus Terra

74. ARBUTUS UVA URSI.

Uva Ursi.—*Trailing Arbutus* or *Bear-berry*.

Folia.

Class X. DECANDRIA.—*Order I. MONOGYNIA.**Natural Order. BICORNES.**Generic Character.* *Calyx* five-parted. *Corolla* ovate, the mouth pellucid at the base. *Berry* five-celled.*Specific Character.* Stalks procumbent, leaves quite entire.

THIS shrub is a native of the northern parts of Europe, growing in mountainous, barren situations; it also grows in Spain, France, and most European countries, flowering in June.

The root is perennial, branched and fibrous. The stems are branched, procumbent and woody, being covered with a smooth bark. The leaves obovate, entire, thick, smooth, alternate, with very short footstalks, glossy, of a deep green colour

on their upper surface, and of a pale green beneath. The flowers are in small clusters, each supported on a red slender pedicle; the calyx is small, and divided into five obtuse teeth; the corolla is flesh-coloured, tubular, oval, and divided at the margin into small reflexed petals; the filaments are short, downy, and crowned with reddish anthers; the germen is oval with a tapering style, longer than the anthers, and a simple stigma: the fruit is a small round red berry, five-celled, and containing angular seeds.

The leaves of *Uva Ursi* are without smell, but have a slightly bitter, astringent, rather sweet taste: the powder should be of a light brown colour, with a shade of green. The stalks also possess some astringency and bitterness. The bitterness resides in the gummy matter, which the leaves contain in larger proportion than they do resinous matter. They give out their virtues most completely to water, by decoction: spirit extracts the activity of the leaves less completely than water, by infusion.

Uva Ursi has long been a celebrated remedy in calculous affections, and by the ancients was thought to have the power of dissolving calculi in the kidneys: it was also considered very beneficial in other affections of the urinary organs. The ancients thought that the medicine was carried to the kidneys, and that it acted as it were locally upon these organs; but in this they were mistaken, for it can only alleviate these diseases by acting on the general system through the medium of the stomach, as a tonic and astringent, and thus improving the state of the digestive organs; it also possesses some slight diuretic qualities, but certainly no power of dissolving calculi. It is useful in irritable bladder and ulcerations of the kidneys,

but it is difficult to account for its *modus operandi* in these diseases. In dysentery and diarrhoea the decoction may be administered as an adjuvant to other medicines; its chief employment, however, is confined to affections of the urinary organs; but future experience must determine its precise virtues in these diseases.

It is commonly exhibited in powder or decoction. The dose is from grs. xv. to ʒj.



Styrac. Officinale

75. STYRAX OFFICINALE.

Officinal Storax.

Balsamum.

*Class X. DECANDRIA.—Order I. MONOGYNIA.**Natural Order. BICORNES.**Generic Character. Calyx inferior. Corolla funnel-shaped. Drupe two-seeded.**Specific Character. Leaves ovate, downy beneath; racemes simple, shorter than the leaf.*

THIS tree is a native of Italy, France and other southern countries of Europe; it likewise grows in Asia, where it arrives at the greatest degree of perfection, flowering in July.

The Storax tree sometimes rises to the height of twenty feet, but is generally somewhat less, being covered with a rough grey bark, and sending off many branches. The leaves are petiolate, alternate, elliptical, pointed, entire, of a bright green colour on their upper surface, and downy beneath. The flowers are in terminal clusters; the corolla is large, monopetalous, funnel-shaped, and of a white colour, being divided at

the margin into five lance-shaped petals; the filaments are in a regular circle appearing to adhere towards the base, and supporting erect oblong anthers; the germen is oval with a slender style and simple stigma; the fruit is a drupe of an oval globular form, containing one or two compressed oval seeds.

The Storax balsam flows in a liquid state, from incisions made into the trunk and branches of the tree, but soon hardens by exposure to the sun and air; that sort commonly met with in our shops comes from Turkey in Asia. There are two kinds of Storax in the markets, viz. Storax in the tear, and Storax in the lump; the former is commonly in irregular masses of an unctuous consistence, and interspersed with whitish, brown and reddish tears, having a sweet and very fragrant odour with a bitterish slightly aromatic taste, and destitute of impurities. The other species called Storax in the lump, is in large masses much lighter, and less compact than the former, containing a considerable proportion of woody matter and other impurities, which deprive it of all the external characters of Storax, it is easily broken down between the fingers, but possesses the fragrance and aromatic bitter taste of the balsam, though in a less degree than the former. This is the kind of Storax which is commonly sold in this country, for in consequence of the great price of the other it is seldom imported, and this, when deprived of its impurities is not at all inferior, and answers every purpose of the purer sort. Storax used formerly to be packed in reeds, from which circumstances it obtained the name of *Styrax Calamita*, but is similar to the other varieties in every respect.

It imparts to water some of its aroma, and a slight balsamic taste, and at the same time a yellow colour. By distillation, water becomes very strongly impregnated with its fragrance, and a very small quantity of essential oil is also procured. Spirit of wine extracts the whole of its virtues, leaving behind all impurities and any gummy matter with which it may have become entangled; and by the aid of this menstruum it would be much better purified than by the method directed in the London Pharmacopæia, for the heat employed in the process there pursued dissipates some of the fragrance of the balsam. When exposed to heat an empyreumatic oil, with Benzoic-acid are sublimed, and a dark resinous remains.

Storax was employed by the ancients in several diseases, as in hoarseness, coughs, asthmas and menstrual obstructions; also some have exhibited it in phthisis pulmonalis; it may somewhat assist the operation of other medicines in these diseases, but must not be depended upon alone for the cure of any of them; it is occasionally applied externally in the form of a stimulating plaster to paralytic and rheumatic limbs. In modern practice, however, it is rarely used, except on account of its fragrance to render other medicines more agreeable; but considering its sensible properties, we think it deserves farther trial, and may be found equal to other balsams. Dose from grs. x to ʒfs. *Officinal Preparations, Styrax Purificata. Pilul. Styrace.*



Syrac benzoin

76. STYRAX BENZONIN-BENZOINUM.

Benzoin or Benjamin Tree.

Balsamum.

*Class X. DECANDRIA. Order I. MONOGYNIA.**Natural Order. BICORNES.**Generic Character. Calyx inferior. Corolla funnel-shaped. Drupe two-seeded.**Specific Character. Leaves oblong, acuminate, tomentose underneath, racemes compound, length of the leaves.*

THIS tree, which is of considerable height, and a native of Sumatra, sends off several round branches which are covered with whitish downy bark. The leaves are oblong, pointed, entire, veined, smooth on the upper surface, and downy beneath, placed alternately on round, striated, downy petioles. The flowers are in compound axillary clusters, all generally hanging on the same side, about the length of the leaves, with the common peduncles tomentose, and the partial ones alternate, spreading and tomentose: pedicles very short; calyx bell-

shaped, short, downy, and divided at the extremity into five obscure teeth: the corolla is composed of five, linear, obtuse petals, four times the length of the calyx, connected together at the base, and externally cineritious; the filaments are a little shorter than the petals, connected at the base and support linear, erect anthers; the germen is oval, downy, and superior, with a slender style and simple stigma.

The Benzoin is procured by making deep incisions into the upper part of the trunk of the tree, from which the juice flows, the first of it is white, soft, and very fragrant, but what follows is of a brownish colour, harder, and gets mixed with sand and impurities, the longer it is exposed the darker it becomes. The balsam must never be extracted till the tree is six years old, and by being drained for twelve successive years, it becomes exhausted of its juice.

It comes to us in large irregular brittle masses, not of an uniform appearance, but of a brownish colour, interspersed with whitish milky tears, and in proportion to the quantity of these white particles is the drug preferred: it breaks with a shining fracture, and has a fragrant agreeable smell, with a sweetish taste. Alcohol extracts the whole of its virtues, which chiefly reside in the Benzoic Acid it contains, giving to the menstruum a reddish colour. Water also extracts some of its fragrance but it is very slightly impregnated with it, as the Acid is scarcely at all soluble in cold water.

When Benzoin is exposed to heat in a retort, the Benzoic Acid sublimes in small feathery crystals, and if the distillation be pushed farther, then a yellowish empyreumatic oil follows, with which the acid is always somewhat impregnated when

procured by distillation, giving to it a peculiar empyreumatic odour, of which it cannot be entirely deprived, even if submitted to repeated distillations. The purest acid is procured by the process directed in the London Pharmacopœia, but as it is a more tedious and expensive process than the former, chemists seldom follow it, but distill the acid immediately from the balsam.

The flowers or acid of Benjamin are very light, of a beautiful white colour, having a fragrant odour, with a slightly acidulous taste, and some degree of pungency; they are readily dissolved in rectified spirit, also in boiling water, but from the latter solution the acid soon becomes deposited in spiculæ, as the water cools.

It rarely happens that the Benzoin is administered in substance, and the chief preparation procured from it is the Benzoic Acid, which possesses slightly stimulating and expectorant qualities, hence it has been administered in coughs, pulmonary affections, asthma, &c., but it does not appear to possess much efficacy in the latter disease. Cullen considers it a diuretic. Dose from grs. x to ʒss. Official Preparations, Acid: Benzoicum, Tinct. Benzoes Comp.



Oxalis Acetosella

77. OXALIS ACETOSELLA—LUJULA.

Wood Sorrel or Sour Trefoil.

Folia.



Class X. DECANDRIA. Order V. PENTAGYNIA.

Natural Order. GRUINALES.

Generic Character. Calyx five-leaved. Petals connected by claws. Stamens unequal, the five shorter exterior ones connected at the base. Capsule opening at the corners, five-cornered.

Specific Character. Scape one-flowered, leaves ternate, obcordate, root dentated.



THIS perennial plant is a native of England, growing in woods and shady situations, and flowering in April and May.

The root is horizontal, scaly and of a red colour; the leaves radical, ternate, and petioled; the leaflets are obcordate, entire, beset with hairs, of a yellowish green colour, and purplish underneath; the leafstalks are slender, nearly upright, and red towards the lower part; the flower-stalk is rather longer than

the leaf-stalk and furnished near the top with two scaly bractes : the segments of the calyx are oblong, oval, ciliated, and often purple at the edge ; the corolla is bell-shaped, with the claws of the petals affixed to the receptacle, they are obovate, rounded and spreading ; the filaments are erect and furnished with oblong, yellow anthers ; germen ovate, with a slender, smooth style, and blunt stigma : the capsule is pentagonal, membranous, and contains several seeds, which are forcibly expelled.

The leaves of the *Acetosella* have an agreeable acid taste, without any smell ; they resemble the *Rumex Acetosa* in their medical properties, but are more grateful to the palate and contain more acidity : the properties depend on an acid salt which they contain, called superoxalate of potass, which when purified goes by the name of Essential Salt of Lemons. The salt is procured by exposing the juice, obtained by pressure from the fresh leaves, to the action of the air, and evaporation taking place, the salt is deposited ; heat is sometimes employed to accelerate the process. After the crystals have become deposited, it is necessary to dissolve them in a fresh portion of water, and crystallize, otherwise they would be mixed with mucilaginous matter and other extraneous substances. The salt may be procured equally pure by artificial means, which is a less expensive process : it is merely to supersaturate a solution of sub-carbonate or caustic potass with oxalic acid. It is sometimes adulterated with tartaric acid, but as the vegetable acids possess very similar properties, it is a fraud of but little importance in a medical point of view.

Neither the leaves nor the salt of Wood-sorrel are much used, as less expensive salts answer every purpose. It was used formerly as an anti-putrescent and refrigerant in fevers, both of an inflammatory and putrid type, also as a beverage in inflammatory complaints when dissolved in water. The leaves may be taken adlibitum; and taken freely they have proved serviceable, like other vegetable acids, in scurvy. Dose of the salt grs. x. to ℥ij.







Asarum Europaeum

ASARUM EUROPÆUM.

Asarabacca.

Folia.

Class XI. DODECANDRIA. Order I. MONOGYNIA.

Natural Order. SARMENTACEÆ.

Generic Character. Calyx three or four cleft, placed on the germen. Corolla wanting. Capsule coriaceous, crowned.

Specific Character. Leaves kidney-shaped, obtuse, in pairs.

THIS perennial-plant is a native of the Southern parts of Europe, it also grows in many parts of England, flowering in May.

The root is fibrous and creeping. The stalk short, round, simple, generally bearing but two leaves, and one flower. The leaves are opposite, large, kidney-shaped, of a deep shining green-colour, and placed on long footstalks. The flower is large, of a dusky purple colour, placed on a short terminal

peduncle; the calyx is bell-shaped, divided into three or four pointed segments, which are erect, and turned inwards; the filaments are about half the length of the calyx, with oblong anthers; style simple with a six-parted stigma; the capsule is coriaceous, six-celled, containing oblong seeds.

The leaves and root of this plant have a nauseous, acrid, bitter taste, with a heavy aromatic odour, something like Valerian. By distilling the fresh root in water an æthereal oil, and a substance resembling Camphor will be obtained. Water by infusion extracts the virtues of the plant, which are emetic, cathartic and diuretic. The extract and decoction are much inferior to the plant in substance, as the active parts are in a great measure dissipated in boiling them.

Linnaeus thought Asarabacca would prove an useful substitute for Ipecacum, it acts in as small a dose, but still as its operation is not confined to the stomach it would not answer in many cases, though it might be exhibited in some diseases with as much relief to the patient as would follow the exhibition of Ipecacuan.

It is a medicine subject to considerable variety as regards its strength, depending partly on the season of the year when gathered, and also on the length of time that it may have been kept, its acrimony being much impaired by keeping.

In modern practice the Asarabacca is principally used as an errhine; snuffed up the nose at night, it occasions a copious secretion of mucus which will often relieve very severe headache, opthalmia, tooth-ache, &c., and where there is a slight apoplectic diathesis, a few grains employed in this manner

will sometimes prove very useful. We must be careful not to take too large a dose, as its operation is sometimes very violent, so as to occasion hæmorrhage from the nose. Dose as an errhine from gr. i. to grs. v.; as an emetic from grs. v. to ℥j. Official Preparation Pulv. Asari Comp.



Canella Alba

CANELLA ALBA—WINTERANIA CANELLA.

Laurel-leaved Canella, or Wild Cinnamon.

Cortex.

*Class XI. DODECANDRIA. Order I. MONOGYNIA.**Natural Order. HOLORACEÆ.**Generic Character. Calyx* three-lobed. *Petals* five.*Anthers* sixteen, adhering to a pitcher-shaped nectary. *Berry* one-celled, with two or four seeds.*Specific Character. Leaves* oblong, obtuse; racemes terminal.

THIS tree is a native of Jamaica and of some other West India Islands; it is also reared in our hot-houses.

The tree is tall and erect, from 10 to 40 feet in height, branched towards the top, and covered with a whitish bark. The leaves are on short footstalks, of a green colour, and shining, like those of the laurel. The flowers are small, of a violet colour, and seldom opening; they grow in clusters upon divided footstalks at the ends of the branches; the calyx is monophyllous, and deeply divided into three roundish, membranous, persistent segments; the petals are oblong, sessile, concave, erect and considerably longer than the calyx, two of which are narrower than the rest; the nectary is pitcher-shaped and deciduous; the anthers are linear, distinct, and supported longitudinally by the nectary; the germen superior and ovate, having a cylindrical style and two obtuse, rough, convex stigmas. The fruit is a black berry. The whole of the tree possesses an aromatic odour, more particularly the flower; and the leaf resembles

the laurel in its smell. Canella is said to be in part propagated by birds who eat the berry and void the seeds, and in consequence of this it is observed that such birds have a peculiar flavour.

The Canella is generally in small, round quills, of a light brown colour, about three quarters of an inch in diameter, and a little thicker than cinnamon: it is often mixed with larger and thicker pieces, which are procured from the trunk of the tree and considered inferior to the former. It has an agreeable, aromatic odour, somewhat like cloves, and a pungent, bitter taste. Neither water nor rectified spirit *alone*, will extract the virtues of this bark, but the best menstruum is a combination of the two i. e. proof spirit; with this, both the aromatic and bitter principles of the drug may be procured. By distillation with water it affords a thick, heavy essential oil, of a yellow or brownish colour, possessing an odour somewhat resembling that of cinnamon: the water also becomes milky from the quantity of oil diffused through it, giving it the flavor of the canella: the watry extract is very bitter.

The medicinal virtues of the Canella bark are stimulant and tonic; it was formerly administered in common with the *Wintera Aromatica* as an antiscorbutic, and many virtues were ascribed to it by the ancients which it does not appear to possess. This article is rarely given in the present day except in conjunction with other medicines of a nauseous nature; it will however be found of some service in intermittents, administered in doses of ʒss. to ʒj; this medicine deserves further trial in this disease which is sometimes of a very obstinate nature. Dose from grs. x to ʒj. *Officinal Preparations* Pulv Aloes cū Canella, Vinum Aloes



Euphorbia officinarum

EUPHORBIA OFFICINARUM.

Officinal Euphorbia.

Gummi-resina.

Class XI. DODECANDRIA. Order III. TRIGYNIA.

Generic Character. Corolla four or five petalled, fixed to the calyx. Calyx one-leaved, ventricose.

Capsule tricoccous.

Specific Character. Prickly, naked, with many angles; prickles double.

THIS succulent, perennial plant is a native of Africa. It consists of a single, erect, roundish stem, about five feet high, having eighteen or more longitudinal furrows. From the body of the plant proceed several branches in different directions; the branches are about three inches in circumference, scolloped and knotted on their outer side, from which proceed very sharp pointed thorns, every where double. From the summit of each branch is a sessile bright crimson flower: calyx persistent, and divided into four or five segments: the petals are four, turbinated, truncated and fixed by claws to the margin of the calyx: the filaments are thread-like, longer than the corolla, and each supporting two globular anthers; the germen is three-sided, with a simple,

short style, terminating in three semi-bifid, obtuse stigmas: the capsule tricoccous, elastic, and contains round solitary seeds.

There are several other species of *Euphorbia*, besides that which we have here described, and the gum-resin is indiscriminately procured from them all, their properties being very similar to the *Euphorbia* here described.

The plants are wounded once in four years, and from the incisions made into the stalks, a considerable quantity of milky juice exudes, which by exposure to the sun and air concretes into tears of various forms and sizes, being generally intermixed with seeds and spines, or other parts of the plant, and occasionally with other impurities as sand, &c. At the time when the incisions are made, the juice flows in such great abundance that a sufficient quantity is collected to supply all Europe.

The recent juice is said to be so acrid as to erode the skin wherever it is applied. When concreted it is in irregular tears of a pale yellow, or reddish colour externally, and whitish within; when applied to the tongue it occasions a burning pungent sensation, which is very permanent, and if masticated, inflammation, and sometimes ulceration of the mouth will be the consequence; it is destitute of smell, but if a small quantity of the fine powder be snuffed up the nose, a great degree of sneezing is produced, and sometime to such a degree as to cause hæmorrhage from the part: with a view to prevent these unpleasant and painful sensations, we would caution those who are employed in pounding this article to put a covering over the mortar.

The *Euphorbium* consists of nearly equal parts of resinous

and gummy matter, but the activity of the drug chiefly resides in the former, which is proved by the extreme acrimony of the tincture and spirituous extract, compared with any watery preparation.

This medicine when applied to the skin produces considerable irritation, and is often useful in the form of plaster in chronic and certain rheumatic affections of the chest and other parts, when blisters, &c. would be inadmissible.

The medicinal virtues of this drug are purgative, emetic, and errhine; but in consequence of its extreme acrimony it is seldom ordered in modern practice. Where it has been inadvertently given, most distressing symptoms have followed; as pain in the stomach, purging, vomiting, intolerable thirst and heat in the throat, &c. When the destruction of life is the result of its operation, it first acts by producing local inflammation, with this, the nervous system sympathizes, giving rise to a considerable disturbance and irritation of the functions of the brain and nerves. The best means of relieving these symptoms is to expel the poison from the alimentary canal, and then to allay the irritation by opiates and other soothing remedies. If employed as an errhine it should be mixed with some inert powder and taken in very small doses, but it may be advisable to avoid its use, as the *Pulv-Asari Comp* will answer every purpose, and will expose the patient to less danger. Dose an errhine from grj. to grs. vj.



Eugenia caryophyllata

EUGENIA CARYOPHYLLATA—CARYO-
PHYLLUS AROMATICUS.

The Clove Tree.

Flores nondum expansi siccati.

Class XII. ICOSANDRIA.—Order I. MONOGYNIA.

Natural Order. HESPERIDEÆ.

Generic Character. Calyx four-parted, superior.

Petals four. *Berry* one-celled, one-seeded.

Specific Character. Leaves quite entire, ovate-lanceolate, opposite; pannicles terminal and axillary.

THIS tree is a native of the Molucca Islands, and also of New Guinea, it is likewise cultivated in several parts of Europe.

The Clove-tree is both handsome in its appearance and useful for a variety of purposes. The stem is dense and does not rise above four or five feet before it sends off large branches, which are covered with a greyish smooth bark. The leaves are oblong, lanceolate, large, entire, opposite, and pointed at both ends, having several parallel nerves on each side the midrib, and placed on footstalks nearly half the length of the leaves. The flowers are in terminal bunches: the calyx is woody, oblong, and divided at the brim into four small toothed segments: the corolla is composed of four roundish notched petals: filaments numerous, inserted into

the calyx, bearing simple anthers: the germen is oblong with a simple style: the fruit is a large bilocular berry.

Every part of the tree possesses the peculiar aroma of the clove, but more especially the leaf-stalks, which are even more fragrant than the cloves themselves.

Cloves are the unexpanded flowers dried, for when blown they lose some of their aroma. When gathered they are dipped into warm water, and then exposed to smoke and heat, during this process they are exchanged from a green, to a dark brown colour, they are sometimes dried without any previous immersion in water, and these are generally preferred to the others; the heat employed should be moderate, or their aroma will be dissipated. Each clove contains a style and stamina, and at the larger extremity are four angles, in the centre of which is a round ball, of a lighter colour than the rest, and composed of four scales. This spice has a strong, fragrant, aromatic odour, with a warm, acrid, aromatic, and very permanent taste. Sometimes cloves are deprived of their oil by distillation and then offered for sale; and being generally mixed with some of the genuine spice, the fraud is not easily detected; by careful investigation however, we may distinguish the bad article from the good, by the former being much weaker in its taste and of a lighter colour.

Water readily extracts the odour of the cloves, but does not draw out their taste with so much facility as alcohol. The essential oil when first procured is white and pellucid, but by keeping, soon changes to a yellow colour; it possesses all the sensible properties of the spice itself, and is heavier than distilled water. It is afforded in a larger or smaller

quantity according to the state of the cloves, whether they have been recently gathered or otherwise, for by keeping a considerable proportion of their oil is lost. It is seldom distilled in this country, being generally imported from Holland. The recent cloves are said to yield a pungent aromatic oil by expression. Sometimes the resin of cloves (procured from a spirituous infusion) is mixed with one of the fixed oils and then added to the genuine article: this adulteration may be partly detected by the depth of colour and its greater degree of pungency; but a more satisfactory way of ascertaining it, is to expose some of the suspected oil on a piece of white paper to the heat of the fire, and if pure it will entirely evaporate; if adulterated, a greasy stain will remain on the paper.

Cloves are as often used for culinary, as medicinal purposes, to give flavour to, and preserve pickles, &c. The article of ink will be prevented from moulding by adding a few bruised to each gallon.

In medicine, for persons of weakly stomachs, where a slight stimulus is requisite, it is sometimes given as a tonic; an useful preparation for this purpose is the Inf. Caryoph (P. L.) It is seldom employed uncombined with other medicines, in consequence of its stimulating effects predominating over its tonic qualities. When joined to other remedies it will both improve their flavor and add to their efficacy. The essential oil is occasionally administered as a carminative. Dose of cloves from grs. v. to grs. xv; of the oil from ℥ ij. to ℥ vj. Official Preparations Inf. Caryophyllorum, Inf. Aurant: Comp. Spir: Ammon: Arom. Vin: Opii. Conf: Aromat. Conf: Scammon.



Myrtus Pimenta

MYRTUS PIMENTA—PIPER JAMAICENSE.

Pimento, Jamaica Pepper or All-Spice.

Baccæ.

Class XII. ICOSANDRIA.—Order I. MONOGYNIA.

Natural Order. HESPERIDEÆ.

Generic Character. Calyx five-cleft, superior. *Petals* five. *Berry* two or three-celled, many seeded.

Specific Character. Flowers, in trichotomous panicles, leaves oblong lanceolate.

THIS tree is a native of Jamaica and of some other West India Islands, growing in mountainous situations, flowering in June, July and August, and ripening its fruit in September.

The Pimento is a very handsome tree, about thirty feet in height, considerably branched towards the top, and covered with a smooth grey bark. The leaves are of different sizes, and commonly four or five inches long, elliptical, pointed, entire, shining, and of a deep green colour. The flowers

are in trichotomous pannicles, usually terminating the branches : the calyx is four-cleft : the petals are four, reflected, and of a pale greenish colour ; filaments longer than the corolla, of the same colour, spreading, supporting yellow, roundish anthers : the style is simple, erect, with an obtuse stigma ; the fruit is a spherical succulent berry of a dark purple or black colour, containing two kidney-shaped seeds.

The leaves, flowers, bark, and berries all possess the aroma of Pimento, but the latter only are employed medicinally. These are gathered soon after the flower has blown, at which time they are green, and contain more aroma, than when perfectly ripe, as the oil soon dissipates by the heat of the sun : when first gathered they are said to resemble juniper berries ; birds are observed to feed upon them, and it is supposed they scatter the seeds in different directions, which vegetate and produce more trees. Immediately after the berries are picked, they are strewed on the ground, and exposed to the sun and air for some days, during which time they should be frequently turned, taking great care to avoid all moisture ; when perfectly dry, the seeds rattle in them and they become changed to a dark brown colour, in this state they are packed in hogsheads for exportation.

The Pimento berry has an agreeable aromatic odour and a warm taste, rather pungent, possessing a compound flavor of cloves, cinnamon and nutmegs, and from this circumstance it has received the trivial name of Allspice. By distillation with water it yields an aromatic essential oil of a brown colour, heavier than water and having a pungent taste somewhat like cloves ; alcohol extracts the whole vir-

tues of the berries. Water also extracts their aroma and becomes somewhat pungent and astringent. The distilled water is a very agreeable preparation of Pimento, and proves a very agreeable and useful vehicle for medicines of unpleasant flavor.

Its chief use is for culinary purposes, being a mild and grateful spice; it is a warm stimulant, and may be combined with other medicines to improve their flavor and add to their efficacy; but it is rarely used alone. The properties of this article are similar to the more expensive aromatics and spices, and it proves a very good substitute for them. Dose from grs. x to ʒss. Official Preparations Aq. Pimentæ, Ol. Pimentæ, Spir. Pimentæ.



Punica Granatum

PUNICA GRANATUM—GRANATUM.

Pomegranate Tree.

Flores et Fructûs cortex.

*Class XII. ICOSANDRIA. Order I. MONOGYNIA.**Natural Order. POMACEÆ.**Generic Character. Calyx* five-cleft, inferior. *Petals* five. *Pome* many-celled, many-seeded.*Specific Character. Leaves* lanceolate, stalk arbo-
raceous.

THIS tree is a native of Spain, Italy, South of France, &c., growing in dry warm soils; its cultivation is attempted in this country but although it blossoms, the fruit does not arrive at perfection.

The Pomegranate rises from sixteen to twenty feet in height, sending off numerous branches, several of which are armed with thorns, and covered with a brownish bark. The leaves are opposite, lance-shaped, veined, inclining to a point at each extremity, placed upon but small foot-stalks, and of a lucid green colour. The flowers are large, terminal, three

or four together, and of a bright scarlet colour; the calyx is large, thick, fleshy, of a red colour, and divided into five pointed segments; the petals are roundish and wrinkled; filaments short, incurved, supporting yellow anthers; the germen roundish with a simple style and round stigma. The fruit is pulpy, about the size of an orange, containing many seeds, and a red acid pulp, crowned with the five teeth of the calyx and covered with a thick coriaceous rind.

The bark of the fruit is externally of a red colour, and internally yellow, containing within a red pulp, which is disposed in several pellucid membranous cells, is of a grateful acid taste, and possesses properties similar to oranges and some of our summer fruits, being cooling and slightly aperient.

The bark of the fruit is of an astringent nature, having a bitter, austere taste, without any odour; it gives out its virtues more completely to water than to spirit. The flowers also have similar properties, but contain less astringent principle, and are milder than the bark, they are likewise inodorous, but are never employed medicinally. The bark from its astringency, may be given with decided benefit in diarrhœa, and some serous discharges, depending on debility of the vessels, as gleet, leucorrhœa, &c.; in the latter disease the decoction may be serviceable in the form of injection. The expense of the Pomegranate, is probably, one principal reason of its not being used in the present day. Dose from ℥j. to ʒj. of the bark, but the best form in which to administer it, are those of decoction and infusion.



Amygdalus Communis

AMYGDALUS COMMUNIS.

The Common Almond Tree.

Nucleus.

Class XII. ICOSANDRIA.—Order I. MONOGYNIA.

Natural Order. POMACEÆ.

Generic Character. Calyx five cleft, inferior. *Drupe* with a nut perforated.

Specific Character. The lower serratures of the leaves glandular, flower sessile, in pairs.

There are two varieties of the *Amygdalus Communis*

β *Amygdalus Sativa*, Sweet Almond Tree.

γ *Amygdalus Amara*, Bitter Almond Tree.

THE Almond tree is a native of Syria and Barbary, it is cultivated likewise in France, Italy, Sicily, and in England, but the warmth of this climate is not generally sufficient to bring it to perfection. It flowers in March and April, and thrives best in a light sandy soil, and southern aspect.

The tree is from fifteen to twenty feet in height, divided

into many spreading branches, which are covered with a dark grey bark. The leaves stand on short footstalks, are elliptical, pointed at both extremities, narrow, minutely serrated, of a bright green colour, and glandular towards the base. The flowers are large, of a pale rose colour, generally placed in pairs on very short peduncles; the calyx is tubular, with the lip divided into five blunt segments; the corolla is divided into five oval convex petals; the filaments are about thirty, of unequal lengths inserted into the calyx, and supporting simple, yellow anthers; the germen is roundish and downy, with a simple style and round stigma. The fruit is of the peach kind, but flatter, and has a tough coriaceous covering, under this is a thick, rough, brittle shell, inclosing an oblong flattish kernel, rounded at one end and pointed at the other.

There is some difference in the size and shape of the almond as procured from different trees, but we cannot, by any external character, distinguish the bitter from the sweet, this can only be ascertained by the taste. It is said that the uncultivated tree affords the bitter almond and that by cultivation it becomes sweet; but this has not yet been satisfactorily investigated; the cuticle of both varieties has an unpleasant bitter taste.

Care should be taken in the selection of almonds, that they are neither rancid nor worm-eaten: the instinct of insects however seems to direct them to avoid the bitter ones.

Sweet Almonds have an agreeable sweet taste, without any odour; they contain a considerable quantity of bland fixed oil, which is to be procured by expression; it has no particular flavor, but is rather more grateful as an internal remedy than

either of the other fixed oils. By infusion in water or spirit they are but little affected; but when triturated with water and sugar form a beautifully white and grateful emulsion; upon standing, the oily matter is very apt to separate; and when acids are added to it this is an immediate consequence. They are frequently taken as an article of food, but are neither nutritive nor wholesome, as a weakly stomach cannot digest them.

The oil when first expressed contains some of the mucilage of the kernels; it should always be procured without the aid of heat, as *that* only disposes it to become rancid, which it is very likely to do if only kept in a warm situation. When triturated with gum arabic and sugar it forms as uniform and almost as palatable an emulsion as can be made from the kernels.

Almonds are never administered in substance, and to obtain their emollient qualities the emulsion is the best preparation. The confection is frequently used to render certain medicines miscible with water, which without it or some similar ingredient could not be effected as resinous substances; castor-oil is rendered very palatable when rubbed up with this confection and some aromatic distilled water.

Bitter Almonds afford by expression an oil equally bland as that obtained from the sweet; but the residue after expression is more intensely bitter than the residue from the sweet. If water be distilled from the kernels it becomes of a bitter sub-acrid, rather fragrant taste, depending on a small quantity of prussic acid with which it is impregnated. This bitter principle is extracted by decoction in spirit or water. They also yield by distillation a very fragrant, acrid, and bitter essential

oil, which is heavier than water, and proves a very active poison to animals; it is only afforded in a small proportion, only a few drops from several pounds of kernels.

From the prussic acid which *Bitter Almonds* contain, they are found to destroy some animals; in the human subject, if eaten freely, they occasion nausea, vomiting and other distressing symptoms. When administered to animals with a view to their destruction, they become absorbed and carried into the circulation and eventually act upon the nerves as a sedative.

They were used by the ancients in intermittents and worms, but, from the uncertainty of their operation and the risk attending it, we seldom see them administered by modern practitioners. They are occasionally used to flavour wines, cordials, &c.; but are chiefly valued on account of the fixed oil they contain, which is obtained indiscriminately from the two varieties. *Officinal Preparations* Mist: Amygd. Oleum Amygd. Conf: Amygd. Emulsio Camph. Emulsio Acaciæ.



Prunus Domestica

PRUNUS DOMESTICA—PRUNUM
GALLICUM.

Common Prune or Plum-Tree.

Fructus.



Class XII. ICOSANDRIA.—Order I. MONOGYNIA.

Natural Order. POMACEÆ.

Generic Character. Calyx four-parted, inferior.
Petals five. *Nut of the Drupe* with prominent
sutures.

Specific Character. Peduncles commonly solitary;
leaves lanceolate, ovate, convoluted; branches
without thorns.



THE plum tree is a native of Greece and Asia, but has been cultivated in most of the southern countries of Europe, for many years, and also in this country.

It rises to the height of ten or fifteen feet, and is covered with a smooth, dark-grey bark. The leaves are ovate, serrated, veined, of a pale-green colour, standing on short footstalks;

when young convoluted and downy. The flowers are large and placed on solitary peduncles; the calyx is erect, and divided into five narrow segments: the petals are white and obovate; the filaments tapering, and inserted into the calyx, supporting reddish anthers: the germen is round, with a simple style, and spherical stigma. The fruit is an egg-shaped drupe, of a violet colour externally, pulpy and yellow within; containing an almond-shaped nut.

The varieties of the *Prunus Domestica* are very numerous. The fruit procured from different trees, varies in shape, colour, size, and flavour; being either round or oblong, of a blue, green, or violet colour; the appearance of the pulp is very similar in all the varieties, still there is a difference in the taste, some are very sweet, and others sub-acid.

The fruit when partially dried, constitutes the officinal part of the tree. The plums are exposed to a moderate heat in a furnace, by which they lose their watery parts and become sweeter than when fresh gathered: those imported from France are generally esteemed as the best. The recent plum is a grateful summer fruit, and may be eaten with impunity, and even advantageously, when perfectly ripe, as it tends to keep the bowels moderately open; but if, as is too often the case, persons indulge themselves in taking the unripe fruit, or even the ripe too freely, very unpleasant symptoms may succeed, such as those attendant upon cholera; this disease is of very frequent occurrence, towards the latter end of summer, and is generally occasioned by partaking of plums, and other fruit of a similar nature.

French prunes have an agreeable sweet taste, but no peculiar properties. They are useful adjuncts to purgatives of unpleasant flavour, and other medicines, as they must be taken in large quantities in order to prove purgative of themselves. Dose ad libitum. Officinal Preparation Confect. Sennæ.



Pyrus Cydonia

PYRUS CYDONIA.

The Quince Tree.

Semina.

Class XII. ICOSANDRIA. Order IV. PENTAGYNIA.

Natural Order. POMACEÆ.

Generic Character. Calyx five-cleft. Petals five.

Pome inferior, five-celled, many seeded.

Specific Character. Leaves purplish, entire; flowers solitary.

THIS tree was originally brought into this country from Cydon in Crete; and has also been found growing wild, on the rocky banks of the Danube. It is now cultivated in this, and most other countries of Europe, flowering in May and June.

The Quince-tree is low, crooked, branched, and covered with a brown bark. The leaves are oval, entire, of a dusky green colour on the upper surface, downy and pale beneath. The flowers large, solitary, and of a rose colour: the calyx is spreading, persistent and villous: the petals large, concave, roundish

notched at their extremities, and inserted into the calyx; the filaments are tapering, shorter than the corolla, terminating in the calyx, and supporting simple anthers: the germen is roundish, with slender styles, and simple stigmas. The fruit is about the size of a large apple, of a yellow colour, and downy: the cells contain oblong, angular, coriaceous seeds. Quinces have a peculiar austere, acid taste, not agreeable to many palates; their odour is faint, but fragrant. They are never used medicinally, and seldom for culinary purposes.

The officinal parts, or seeds are oblong, obtuse at one extremity, and acute at the other, externally brown, and internally white: they have scarcely any taste or smell, but contain a considerable quantity of mucilage, in which resides their medicinal virtues. Their mucilage is readily extracted by boiling water, and the decoction possesses properties similar to other mucilaginous fluid. It has a sweetish taste, which may make it more palatable than others; and is useful in all cases where such remedies are required, *viz.* as a diluent in cases of poison by any metallic preparation, for at the same that the poison is diluted, a portion of it may be inviscated and expelled from the stomach. This decotion very soon becomes rancid, it is therefore necessary always to have it recently prepared. It may be taken as a drink in fevers, and in inflammatory complaints. Dose of the decoction *ad libitum*.



Rosa Centifolia

ROSA CENTIFOLIA.

The Hundred-leaved Rose.

Petala.

*Class XII. ICOSANDRIA. Order V. POLYGYNIA.**Natural Order. SENTICOSÆ.*

Generic Character. Petals five. Calyx pitcher-shaped, five-cleft, fleshy, contracted at the neck. *Seeds* numerous, hispid, affixed to the under side of the calyx.

Specific Character. Germen ovate; peduncles hispid; stem hispid and prickly; petioles unarmed.

VARIOUS opinions are entertained with respect to the native place of this species of Rose, and it is a point which still remains undetermined. It is, however, cultivated in almost every part of Europe, flowering in June.

It has prickly stalks, which are from three to six feet in height. The leaves are pinnated, consisting of two or three

pair of pinnæ, with a terminal one: the leaflets are oval, broad, serrated, veined, hairy, and attached by very short petioles to a rough common footstalk. The flowers are large, varying in colour, (generally of a pale red) and supported on peduncles which are beset with bristly hairs: the leaves of the calyx are semi-pinnate: the petals are large and numerous: the parts of fructification, are by cultivation converted into petals.

There are many varieties comprehended under this species of Rose, which are indiscriminately gathered for medicinal purposes, and not found essentially to differ from each other. This species had long been considered as the *Damask Rose*, until by investigation it was found a perfectly distinct species.

The petals of this Rose possess a very fragrant odour, which is not entirely dissipated by keeping, but as some of the flavour is lost unless used fresh, the Aqua Rosæ is distilled from petals recently gathered: their taste is sweetish and slightly bitter. Water extracts the odour of the petals both by infusion and distillation, and when large quantities of the petals are employed in the distillation, a very small portion of yellow, fragrant butyraceous essential oil is sometimes procured; it is of a very mild nature, possessing no pungency. They also give out a bitter principle to water; but alcohol is their best menstruum.

Their chief use is as a perfume. The otto of roses, which is procured from this species, has a most powerful and fragrant odour, and is exceedingly diffusible. They are slightly aperient, but are rarely administered medicinally, except occasionally to

children in the Syr. Rosæ. The chief use to which the petals are applied in this country, is for the distillation of the Aqua Rosæ, which possesses no medicinal virtues, and is only used on account of its agreeable odour. Officinal Preparations, Aqua Rosæ, Syrupus Rosæ



Rosa Gallica

ROSA GALLICA—ROSA RUBRA.

Red Rose.

Petalæ.

*Class XII. ICOSANDRIA.—Order V. POLYGYNIA.**Natural Order. SENTICOSÆ.*

Generic Character. Petals five. Calyx pitcher-shaped, five-cleft, fleshy, contracted at the neck. Seeds numerous, hispid, affixed to the inner side of the calyx.

Specific Character. Germen ovate; peduncles hispid; stalk and petioles hispid, with prickles.



THE Red Rose is a native of the southern parts of Europe, and is cultivated in most gardens, flowering in June and July.

The stalks are erect and without prickles. The foliage resembles that of the *centifolia*, but the segments are less acute. The petals are large, less numerous, spreading, and of a deep crimson colour: the filaments are numerous, thread-like, supporting yellow anthers.

This species of rose is cultivated in considerable quantities in the environs of London for medical purposes.

The properties of the petals are very different from those of the *centifolia*; having scarcely any odour, and possessing an astringent bitter taste. The astringency is greatest before the flowers are fully blown, hence they should always be gathered previous to the expansion of the flower. When deprived of their calyces, it is of importance that they be immediately and quickly dried, as exposure to the light will impair their colour, and at the same time deprive them in some degree of their astringency: when perfectly dry, they should be packed and kept in a dark, dry situation.

They impart their virtues both to water and spirit, but the colour of the infusion is much improved by the addition of a small quantity of acid, and the sulphuric being the most astringent, is generally preferred.

The conserve of red roses is a very useful-palliative remedy, in allaying phthisical coughs, especially when combined with Syr. Papav; and this will be improved by the addition of a small quantity of the Acid. Sulph. Dil., which renders it more grateful, and in this form can generally be continued for a longer time, than when the acid is omitted; and the acid tends also to check nightly perspirations. The Conf. Rosæ is said to have been taken in the quantity of 20 and 30lbs. monthly, with the best effects in phthisis.

The Inf. Rosæ is a mild and grateful astringent and tonic, and may often be given with advantage in cases where more powerful tonics would be injurious, as towards the close of fevers, where there is but slight febrile irritation remaining. In

hæmorrhages of different descriptions, it is a very useful beverage, and when drank freely in hæmoptysis and menorrhagia will often put a stop to the disease. It is a very useful gargle in sore throats, both the simple and malignant. This infusion also, is a very elegant and pleasant vehicle for many medicines of more activity than itself. The Syr. et Mel. Rosæ are seldom used, but to colour other medicines. Dose of the leaves from ʒj to ʒj. Officinal preparations. Confect : Rosæ, Syr : Rosæ, Mel Rosæ, Infus : Rosæ.



Rosa Canina

ROSA CANINA—CYNOSBATUS.

Common Dog Rose, Wild Briar, or Hep Tree.

Baccarum pulpa expressa.

Class XII. ICOSANDRIA. Order V. POLYGYNIA.

Natural Order. SENTICOSÆ.

Generic Character. Calyx pitcher-shaped, five-cleft, fleshy, contracted at the neck. Seeds numerous hispid, affixed to the inner side of the calyx.

Specific Character. Germens ovate; peduncles glabrous; stalk and petioles prickly.

THE Dog Rose is very common in hedges, in every part of England, flowering in June.

It is eight or ten feet in height, and divided into several smooth branches, beset with alternate, hooked prickles. The leaves are pinnate, commonly composed of three pair of leaflets, with a terminal one; these pinnæ are ovate, pointed, veined, serrated and smooth: the common footstalk is prickly, having a sheathy expansion at its base. The flowers are ter-

minal, large, of a pale flesh colour, and are disposed in a sort of corymb: the fleshy divisions of the calyx are subdivided into smaller segments: the corolla is generally composed of five, inversely cordate petals: the filaments are numerous, slender, and inserted into the calyx, supporting triangular anthers; the styles are villous and short, proceeding from five germens, and terminating in obtuse stigmas: the fruit is an ovate, fleshy, smooth, red berry, containing numerous long seeds, embedded amongst fine white bristles.

The flowers of this species of Rose, have an agreeable odour, but are not equal to those of the *centifolia*. The fruit is the medicinal part, which when fresh has a sweetish acid taste, and becomes more tart when dried. Previous to using the berries, the seeds and bristles must be carefully removed, as they would produce much irritation in the stomach and bowels if allowed to remain. The only purpose to which they are applied is for the preparation of the *Conserve*: the berries are longitudinally divided, which allow of the seeds, &c. being readily removed, after this they are beat up with a certain proportion of sugar. This *conserve* possesses no medicinal virtues, and is only prepared as being a pleasant, useful vehicle for some medicines, and for the purpose of making certain preparations into pills.



Tormensisilla Erecta

TORMENTILLA ERECTA VEL OFFICINALIS.

Common Tormentil, or Septfoil.

Radix.

Class XII. ICOSANDRIA.—Order V. POLYGYNIA.

Natural Order. SENTICOSÆ.

Generic Character. Calyx three-cleft. *Petals* four.

Seeds roundish, naked, affixed to a small juiceless receptacle.

Specific Character. Stalks somewhat upright; leaves sessile.

THIS perennial, indigenous plant is very common in woods, heaths and in barren pastures, flowering in June and July.

The root is woody, sending off several small fibres. The stalks are round, leafy, at first procumbent, but afterwards send off erect branches. The leaves are lanceolate, ternate,

and serrated. The flowers solitary, on long opposite peduncles: the calyx consists of segments which are alternately larger and smaller, ovate and hairy: the petals are obcordate, of a golden yellow colour, with short claws; the filaments are short, supporting roundish yellow anthers: the seeds are few and naked.

The root which is the officinal part of the plant is conical, knotty and crooked, externally of a dark brown colour, and internally red; it has a styptic somewhat aromatic taste, but without any odour. The active parts of the drug are extracted both by rectified spirit and water, but most completely by the former, forming with it a red tincture; whilst the watery infusion is of a reddish brown colour, when hot, but upon cooling deposits some resinous matter, and becomes cloudy. The watery and spirituous extracts are both extremely styptic.

The tormentil root is a powerful astringent; and as such is often administered with the best effects in diarrhoea of a certain description, viz. where the discharge is very copious, &c. but it is generally necessary to combine it with other astringents. In leucorrhœa, menorrhœa and other chronic serous discharges, and indeed in any case where a simple astringent is required, the Decoction of Tormentil may be administered with decided benefit, for it is equally serviceable as any other vegetable astringent. The powdered root, if taken in full doses and repeated frequently will cure intermittent fevers, but it is rarely administered in that disease. In relaxations of the uvula and soft palate, it forms

an useful gargle; and in leucorrhœa it may be employed in the form of injection. Dose of the powder from ℥ss to ʒj. The only preparation into which it enters is the Pulvis Cretæ Compositus.



Geum Urbanum.

GEUM URBANUM.

Common Avena or Herb Bennet.

Radix.

*Class XII. ICOSANDRIA.—Order V. POLYGYNIA.**Natural Order. SENTICOSÆ.**Generic Character. Calyx ten-cleft. Petals five.**Seeds with a bent awn.**Specific Character. Flowers erect; fruit globose and villous; awns unciform, naked; leaves lyre-shaped.*

THIS perennial indigenous plant, is very plentiful, in woods, by the sides of hedges, and in other shady situations.

The root is fibrous and of a brown colour. The stalk of a reddish brown on one side, branched, nearly upright, and almost two feet in height. The radical leaves are pinnate, divided into several pair of leaflets, with a large wedge-shaped terminal one: the leaves on the stalk are simple, trifid, and placed alternately; having two stipules, at their

bases, contiguous to the stalk: the whole of the leaves are of a deep green colour, serrated, hairy, and placed on channelled footstalks. The flowers are on terminal, solitary, peduncles: the calyx is divided into ten pointed segments, of which five alternate ones are smaller than the rest; the petals entire, roundish, and of a yellow colour; the filaments very numerous, supporting round, yellow anthers, and inserted into the calyx: the germens are hairy and collected into an oval shape, each supporting a style jointed in the middle, and a simple stigma: the seeds are numerous, rough, hooked, and terminated by a long arista.

The avens root is externally of a brown colour, and internally white, with numerous fibres. It should be dug up in spring, when the soil is dry, at which time it has a fragrant odour, somewhat like cloves, with a bitter austere taste: but it loses some of its odour by drying, hence that process should be conducted with great care.

Both water and spirit extract its virtues by infusion, and assume a brownish colour: but the aroma is given out most completely to the latter. By distillation it yields a small quantity of white concrete oil, of a very fragrant odour, which is in part communicated to water by distillation. The watery and spirituous extracts retain the bitter astringent principle of the root, without the aroma.

This root possesses a considerable degree of astringency, and on this account has long been celebrated on the continent, as a useful remedy in several diseases; some have even asserted that it was superior to the Cinchona in the cure of intermittents, but experience tells us, we must not place much reliance in this root for the cure of agues, as it fre-

quently fails; if used in this disease the dose should be from ʒj. to ʒij. three and four times daily. Towards the close of dysentery, in diarrhoea and certain serous discharges, and in fact in any cases, where an astringent and tonic is required, this has been recommended. We have not had much experience as to its virtues, but think it deserving of farther trial. The dose is from ʒj. to ʒij.



Papaver Rhoeas

PAPAVER RHŒAS—PAPAVER ERRATICUM.

Red Poppy or Corn Rose.

Petala.

Class XIII. POLYANDRIA.—Order I. MONOGYNIA.

Natural Order. RHŒADES.

Generic Character. Corolla four-petalled. *Calyx* two-leaved. *Capsule* one-celled, opening by pores under the persistent stigma.

Specific Character. Capsule glabrous, globose; stem hairy, many flowered; leaves pinnatifid incised.

THIS species of Poppy is very common in corn fields, where it is often so plentiful as to impede the growth of the corn; it flowers in June.

The root is annual and simple. The stem from one to two feet in height, branched, and beset with rather stiff horizontal hairs, which give to it a rough feel. The leaves are alternate, pinnatifid and hairy on both sides. The flowers are solitary, on slender hairy peduncles: the calyx

consists of two large ovate, rough, concave leaves, which drop before the petals are expanded; the corolla is composed of four large, spreading, concave, roundish, unequal petals, of a bright scarlet colour, and marked at the base with a black spot; the germen is ovate, truncated at the top, smooth, with a sessile radiated stigma, (the radii are of a purple colour) it becomes a capsule of an urn-shape.

This species is sometimes confounded with the *Papaver Dubium* and *P. Argemone*, for they grow in similar situations and upon a superficial glance it seems to resemble them. They may be readily distinguished by the *P. Dubium*, having a glabrous oblong capsule, and in the *P. Argemone*, the capsule is oblong and hispid.

The capsules contain a small quantity of juice which possesses slight narcotic qualities, but so much inferior to Opium that it is never collected.

The corolla is the officinal part, which when fresh, has a disagreeable, slightly narcotic odour, and a mucilaginous, somewhat bitter taste; water extracts these properties by infusion, but possesses no medicinal qualities, and is only used as a colouring matter; formerly, however, it was thought to possess sedative qualities, and was frequently given in catarrhal affections. Dose from ℥j to ʒj in infusion. Officinal preparation Syrupus Rhœados.



Papaver Somniferum

PAPAYER SOMNIFERUM—PAPAYER
ALBUM.

White Poppy.

Capsulæ ; et capsularum immaturarum succus concretus.

Class XIII. POLYANDRIA. Order I. MONOGYNIA.

Natural Order. RHŒADES.

Generic Character. Corolla four-petalled. *Calyx* two-leaved. *Capsule* one-celled, opening by pores under the persistent stigma.

Specific Character. Calyces and capsules smooth ; leaves incised and embracing the stem.

THIS species of poppy is a native of Asia, and is found wild in the south of Europe, where the seeds had probably been accidentally scattered ; it is also cultivated in this country, flowering in July.

The root is annual, tapering and branched. The stalk is erect, three or four feet in height, branched, of a glaucous green colour, round and cylindrical. The leaves are large, alternate, lobed, deeply cut into various segments, and em-

bracing the stem. The flowers are large, terminal and solitary; the calyx consists of two, very smooth, ovate, concave segments, which fall when the flower expands: the petals are large, roundish, entire, somewhat undulated, and commonly of a white or purple colour: the filaments are numerous, slender, shorter than the corolla, supporting erect, compressed anthers: the germen is roundish, with a many rayed stigma: the capsule is smooth, large, and filled with a great many small seeds.

From cultivation and difference in soil, several varieties of the *Papaver Somniferum* are met with: the double varieties are not at all inferior to the uncultivated plant.

Every part of the plant has the peculiar odour and taste of opium: but the milky juice, which is the active ingredient, resides chiefly in the capsules. The seeds however, when perfectly ripe, contain scarcely any of the narcotic principle, but are chiefly composed of mucilage, and in their native soil are often used as an article of food; they have a sweetish bland taste, somewhat like almonds.

In warm climates as Persia, Arabia and other parts of Asia, the poppy comes to great perfection, from the care taken in its cultivation, and the richness of the soil, and it is from Asia, that the greater proportion of our opium is imported. When the capsules are half ripe, they contain a considerable quantity of the narcotic milky juice, which is obtained by making longitudinal incisions into them, at sun set; during the night it exudes and attaches itself to the outsides of the capsules and stems, from which it is collected on the following morning, and placed in earthen vessels. These incisions are repeated for six successive evenings, taking care not to pene-

trate into the cavity of the capsule ; they are afterwards left to ripen their seeds. All the juice that has been collected, is worked by the hands in the sunshine, till it becomes of a proper consistence, when it is made into masses of different sizes ; these are covered with the leaves of tobacco or poppy, and are then ready for exportation. Formerly the opium used to be procured from the stalks as well as capsules ; they were first bruised and then submitted to a press, the juice which exuded was exposed to the sun that it might inspissate. It is said that the Arabians sometimes bruise the capsules, together with the seeds, boil them in water, and evaporate the decoction to the consistence of a syrup, which is mixed with the genuine drug, and for the sake of gain, the juices of other plants have been mixed with it, which is a fraud of serious importance, though with difficulty detected.

Opium is a gummy-resinous matter, of a reddish brown colour, compact, pliant and rather tough, having a peculiar strong, narcotic odour ; and nauseous bitter, somewhat acrid taste. It consists of gum, resin, some oily matter, and saline particles, in the latter of which is found a peculiar salt called *Morphia* in which substance the narcotic virtue of the opium is thought to reside

Water extracts some of its virtues by infusion, assuming a brown colour, and when a solution of iron is added to it, becomes black, indicating the presence of astringent matter. It is in part soluble in alcohol, wine, vinegar, &c. One of the chief constituents of opium is a volatile matter, which is so active as to occasion giddiness, trembling, &c. in the persons employed in collecting the juice. This principle is extracted by water and spirit in distillation ; hence the decoction of

opium impairs its virtues; roasting also by depriving it of this active volatile matter, injures the drug. By age these volatile particles become dissipated; and to prevent this as much as possible, the opium should be always kept in wet, moist, situations.

There are two kinds of opium distinguished in the shops, the *Turkey* and *East Indian*.

The *Turkey Opium* is compact, and very tenacious, when broken has an uniform appearance, and by keeping becomes harder, and may easily be pulverized.

The *East Indian* is less tenacious, of a darker colour, with a more disagreeable and bitter taste, and less of the peculiar narcotic odour, than the *Turkey*.

The *English Opium* which is cultivated in this country in a manner very similar to that pursued in Turkey, resembles it in every respect; and is indeed sometimes purer and more active than the foreign drug; and is used by several medical men with the best success, but prejudice, prevents it from coming into general use.

Opium has long been celebrated for its sedative qualities upon the animal œconomy; the first employment of it seems to have been by Diagoras. Hippocrates does not mention it; since that time it has been getting into more general repute, and is now ranked amongst our most active and useful remedies, in a variety of diseases. When first discovered, its employment was very limited, from the powerful effects which were seen to follow its exhibition: all the trials which have since been made with it, confirm the statements of our ancestors.

When opium is taken in large doses, by the Turks, it occa-

sions a remarkable exhilaration of spirits; they have various agreeable images before their eyes, lose all fear of death, and occasionally become very violent and ferocious; in fact it acts upon them, in a similar manner that intoxicating liquors do upon us, and they indulge in it, in consequence of their religion forbidding any excess in intoxicating liquors. Some of them will take as much as four or five drams, or even an ounce daily with impunity, not having any of the above symptoms, but only a degree of languor and sleepiness, which continues but for a short time, unless the dose be renewed. Such practices however render them very stupid, sorrowful and inattentive to the common concerns of life.

When an over-dose of opium, as a few grains, are given to a person quite unaccustomed to its use, it will first occasion a degree of hilarity somewhat like intoxication, with a quick and full pulse; these symptoms are soon succeeded by the following narcotic effects, as drowsiness, slow pulse, impaired sensibility, and at length sleep: upon awaking several distressing symptoms appear as nausea, anxiety, pain in the head, trembling of the muscles, and certain unpleasant nervous sensations. But if the dose be very large, the sedative effects are almost immediate and more conspicuous; drowsiness, languor, stertorous breathing, are the consequence, accompanied with a slow pulse; perfect insensibility soon succeeds, and the patient will fall a victim unless proper and immediate assistance be given. The time that a person lives, (if no assistance be given) will depend on the quantity of Opium which has been taken. When thrown into the stomach of dogs it acts as on the human subject, unless the animal reject it, which is generally the case. From experiments made upon dogs, it

is found to act with more rapidity when thrown into the cellular membrane, than if injected into the stomach: when used as a clyster, its sedative effects became very obvious, but it seldom proved fatal even in very large doses. In the human subject, however, its effects are more active, for when injected into the rectum it occasions headache, sickness, and all the symptoms of poisoning by Opium.

The *Modus Operandi* of this medicine appears to be on the brain and nervous system, being first absorbed and taken into the circulation; we cannot however conceive that this is always the case, for its effects are sometimes too sudden, and before it could possibly have been carried into the circulation. Inflammation of the stomach or intestines is never the result of large doses of Opium, unless the tincture be taken, when the spirit may produce such an effect, but it is never produced by the Opium itself. Some authors state that the blood remains fluid after death, where persons have been destroyed by Opium, but this appearance is not at all uniform, for it is as often coagulated.

No antidote has been discovered to this poison. The chief remedy to be relied on is an emetic, of the Sulphas Zinci, Cupri vel Ferri, but the former is generally employed, being the most speedy in its operation, and safer than the others;—at the same time the patient must be kept in constant motion, lest he fall into a state of irrecoverable coma. It has been recommended to take blood from a vein under the idea, that the Opium would be drawn away with the blood, this is a very false notion; if such practice be adopted it should be with a view to relieve the vessels of the head, which are commonly in a state of congestion, hence the jugular vein

may be opened, or cupping-glasses applied to the neck with evident advantage to the patient. Vinegar has been frequently recommended as an antidote to Opium, but it is one of the most improper things that can be taken, whilst the Opium is in the stomach, for it forms a more active compound than the poison itself: when the Opium is expelled from the stomach, and the patient is labouring under its effects, diluted vegetable acids will often relieve the nausea and other distressing symptoms which remain. Coffee is an useful beverage, and may be taken throughout the attack: for where Opium disagrees in small doses, by adding it to a cup of coffee, a patient will often be able to take it.

Medical properties. Opium is one of the most powerful remedies we possess, in allaying irritability and pain, and in very small doses acts as a stimulus, occasioning temporary excitement.

The diseases in which it has been administered are too numerous for us to enter minutely into the subject, we shall briefly enumerate them without attending to the different opinions respecting its *modus operandi*. In *intermittents* a full dose of Opium as grj. a short time before the paroxysm is expected is one of the most effectual modes of setting it aside; it should not however be continued between the paroxysms, as it will probably create very unpleasant symptoms.

In *continued fevers* it will not be generally admissible, unless there be some symptom present, indicating its use as diarrhoea, watchfulness, or the low delirium of Typhus connected with a state of irritability from want of sleep: for

it will probably occasion congestion about the head, and constipation, symptoms which are to be dreaded in fevers.

In all *spasmodic diseases*, Opium is our sovereign remedy, particularly when the spasm is occasioned by calculi irritating the gall ducts or ureters; also in colic, spasms of the chest and stomach, and tetanus. In the irregular contractions of the uterus after delivery, a few drops of Tinct. Opii. repeated at short intervals is an universal remedy. In most cases where spasm exists it is adviseable unless any idiocyncrasy in the patient should forbid its exhibition.

In *diarrhœa* and *dysentery* it is an useful remedy, but the different modifications in these diseases, require that it should generally be combined with other medicines.

At the commencement of cholera, a grain of Opium is our best remedy, but at the same time it is necessary to relieve the congestion, which commonly exists in the liver by cupping. There is a certain irritability of the stomach, attended with frequent vomitings, which often occurs in the first and latter months of pregnancy, where small doses of Opium may be given with the greatest advantage to the patient.

In convulsions, certain nervous diseases, and in hæmorrhages depending on irritability of the system, it is required, if neither congestion nor inflammation exist. Combined with Ipecacuana, it is useful in the acute and chronic forms of rheumatism. United with Calomel, it has a very powerful effect in allaying irritation kept up by severe injuries as extensive lacerations, compound fractures, mortifications, &c. It is often used externally in the form of plaster to severe and chronic pains, in different parts of the body; the oint-

ment is likewise frequently applied to irritable sores. The dose of Opium must vary considerably according to the circumstances of the cases, from gr. $\frac{1}{8}$ to grij. and by habit much larger doses may be taken.

A few words remain to be said on the dried capsules. When the seed-vessels are allowed to ripen, they lose a considerable quantity of their active narcotic principle; they are gathered as they ripen at different times of the season, and packed in bags ready for exportation. The preparations made from the dried poppies possess similar narcotic properties to Opium, but in a very inferior degree, and will act as Opium if given in very large doses; thus the Syr: Papav is often given to children, by nurses, without any reason, and occasionally very alarming symptoms are the consequence, which are very obscure. The Liq: Ammon Subcarb is the best antidote, at the same time rousing the child thoroughly. It is an useful sedative for children when properly administered, but in the hands of the ignorant a poison. In adults, the Syr: Papav is frequently given to allay coughs, depending on the irritability of the lungs. The decoction is an useful fomentation to allay irritability, but is never administered internally.

A new preparation of Opium has within these few years been introduced into practice, which in many cases is superior to any other; it is an acetous solution of the active parts of Opium, obtained by submitting the drug to an acetous fermentation, &c; it has received the name of *Black Drop*, and is five times the strength of the Tinct. Opii, and may be administered to many patients, who are unable to take the other forms of the drug, as it is not found to create pain in the head,

giddiness and other distressing symptoms, which are too well known to those in whom opium disagrees. It has also another advantage, viz. that it does not constipate the bowels. The *Black Drop* may be administered in most cases where Opium is required.

The preparations from the *Poppy* are Decoct: Papav: Syr: Papav: Ext: Papav:—*from Opium*. Opium Purificatum, Conf: Opii: Ext: Opii:, Pilul: Sapon: cū Op. Pulv. Opiat. Pulv: Cornu Usti c Op. Pulv: Cretæ Comp: c Op. Pulv: Ipecac: Comp. Tinct: Opii. Tinct: Camph: C. Tinct: Opii: Amm. Vin Opii, Troch: Glycyrrh c Opii.



Aconitum Napellus

ACONITUM NAPELLUS.

Wolfe's Bane, Monkshood or Aconite.

Folia.

*Class XIII. POLYANDRIA. Order III. TRIGYNIA.**Natural Order. MULTISILIQUEÆ.*

Generic Character. Calyx wanting. *Petals* five, the uppermost arched. *Nectaries* two, peduncled, recurved. *Pods* three or five.

Specific Character. Laciniaë of the leaves linear, broadest above, and gashed.

THIS perennial plant is a native of France, Germany and Switzerland, growing in elevated situations: it is also frequently cultivated as an ornament in our gardens.

The root is fusiform. The stem several feet in height, erect and leafy. The lower leaves are lobed, and deeply cleft, placed on long petioles; the upper ones are nearly sessile, of a dark green colour above, and pale beneath. The flowers are placed on unifloral, axillary peduncles, and termi-

nate the stem in a long spike; the petals are of a deep violet colour, the uppermost hooded, covering two curious nectaries; the lateral ones roundish, and the lower elliptical: the filaments are spreading, supporting whitish anthers; the germens are from three to five, with simple reflected stigmas.

The whole plant is very deleterious in its recent state; it has a narcotic odour, and a pungent acrid taste, and the heat which it occasions in the mouth will continue for some minutes. The activity of the plant is much diminished by drying. The root is the most active part, but the leaves only are used medicinally. The virtues of Aconite are extracted both by water and spirit, but the spirituous extract is the most active preparation.

When fresh it has a slight narcotic odour; with a bitter, rather acrid taste, and when chewed it first excites a warm sensation on the tongue; in some minutes there is a loss of taste, and this is succeeded by a paralytic state of the organ. When administered in an over dose, it occasions nausea, vomiting, vertigo, distressed breathing, weakness of the limbs, paralysis, which symptoms are attended with a weak fluttering pulse; coma frequently ensues, which will probably terminate in death: sometimes death is very sudden: mania has occurred as the result of an over dose of Aconite. The best treatment is to give emetics, and diluent laxatives, so that we may expel the poison as speedily as possible from the alimentary canal; if there be sickness and uneasiness at the stomach, opiates are recommended. The symptoms above enumerated are observed to take place, whether the poison be applied to a wound, or taken into the stomach, for it produces no inflammation, but acts secondarily on the nervous system.

For medicinal purposes, the leaves should be gathered, just as the plant begins to blossom. The wild variety is preferred, as the activity of the plant is impaired by cultivation. Drying deprives them in some measure of their active particles, hence it is adviseable that the plant be not kept any length of time. The inspissated juice is the best preparation, for in boiling the plant to make an extract, we lose a great deal of its acrimony.

Aconite is a powerful narcotic and diaphoretic. It was first recommended and administered by Stoerk in rheumatism, asthma, rheumatic gout, and a variety of other diseases, especially in parylitic affections; but we must receive all statements from that author with caution, as he was apt to attribute many virtues to plants, which by experience, it was found they did not possess. It may occasionally be administered with advantage, as a narcotic in some complaints, to allay irritability, &c., but we cannot conceive that cancer can be cured either by its internal or external administration, although it has been strongly recommended in that disease; also in amaurosis. But from the uncertainty of its strength, and its operation, we rarely find it used at the present day. Even its external application is not unattended with danger, therefore if applied to cancerous sores, or other ill-conditioned ulcers, it must be with the greatest caution.

The dose of the powder is from gr. *ss.* to grs. *iv.* Official Preparation *Extractum Aconiti.*

There are other species of *Aconite*, which were formerly in use, possessing similar properties to the one here described, but from their having fallen into disuse, it will be unnecessary to describe them.



Helleb. Nigr.

HELLEBORUS NIGER.

Black Hellebore or Christmas Rose.

Radix.

*Class XIII. POLYANDRIA.—Order VI. POLLYGYNIA.**Natural Order. MULTISILIQUEÆ.*

Generic Character. Calyx wanting. Petals five, or more. Nectaries bilabiate, tubular. Capsules many seeded, nearly erect.

Specific Character. Scape one or two-flowered, nearly naked; leaves pedate.



THIS plant is a native of Austria, the Appenines and Pyrenees, flowering from December to March. It is now cultivated in our gardens.

The root is perennial, transverse, rough, knotted, externally black, and internally whitish, sending off many depending fibres. The scapes, or flower stalks are erect, round, towards the bottom reddish, and surrounded by an involucre. The leaves are of a deep green colour, compound, of a peculiar

shape, generally divided into five leaflets, and spring directly from the root, by long footstalks; the leaflets are elliptical, smooth, coriaceous, and the upper half serrated: the floral leaves which are oval and concave, supply the place of the calyx: the petals are large, roundish, concave and spreading, at first of a white colour, with a tint of red, but by age they turn green. The nectaries are eight, tubular, bibabiate, and of a greenish colour; filaments numerous, with yellow anthers; the germs vary from four to eight.

The roots of several plants have been occasionally mixed with those of the Black Hellebore, and sold as the genuine article, a fraud of the greatest importance to detect, as they possess properties widely different, and some of them are so very active that mischievous consequence have been the result of exhibiting them; for they cannot very readily be distinguished.

The fibrous part of the root, which alone is employed medicinally, is about the thickness of a straw, and six inches in length, of a deep brown colour externally, and internally whitish; their taste is bitter and acrid, leaving a sensation of heat upon the tongue; their odour is nauseous and acrid, but much impaired by age.

The activity of Hellebore is extracted both by water and spirit; the purgative quality resides in the watery extract; but the spirituous infusion is the most acrid; by distillation water becomes impregnated with its acrimony.

When Black Hellebore is taken into the stomach in large doses, or applied externally to wounds, its effects are very sudden and violent; but in the latter case, the symptoms are most distressing. It occasions violent vomiting and purging

attended with griping and cold sweats, considerable derangement of the nervous system, and if it continue long in the alimentary canal, it becomes inflamed. These symptoms may in a great measure be prevented by giving diluent emetics and laxatives, at the commencement; but if any inflammation should succeed, the treatment must be antiphlogistic.

This medicine was formerly in high repute as a cure for mania, but it was probably from its purgative qualities that they attributed this power to it. It is recommended in amenorrhœa, &c. Bacher's pills are by some held in high estimation in the cure of dropsy, especially by continental physicians; the chief ingredient in them is Black Hellebore, combined with myrrh; they certainly possess diuretic properties, but are doubtful in their operation. If this drug be employed at all, it must be with caution, as it is difficult to know the exact strength of it. It is very drastic in its operation, therefore whilst we have in our possession remedies of equal efficacy, greater safety, and such as can be depended on, we would recommend that it be only employed in extreme cases. As an external application in the form of decoction, it has been used with advantage in lepra, scabies, &c. Dose of the root from grs. v. to ℥j. *Officinal Preparations, Extr. Helleb. Nigr. Tinct. Helleb. Nigr.*





Lavandula Spica

LAVANDULA SPICA.

Common Lavender.

Flores.

*Class XIV. DIDYNAMIA. Order GYMNOSPERMIA.**Natural Order. VERTICILLATÆ.**Generic Character. Calyx* ovate, subdentate, supported by a bractea. *Corolla* resupine. *Stamens* within the tube.*Specific Character. Leaves* sessile, lanceolate-linear, rolled back at the edges; spike interrupted and naked.

LAVENDER is a perennial shrub, growing wild in the Southern parts of Europe, but commonly cultivated in our gardens.

The root is fibrous and woody. The stalk is considerably branched, in its native soil from five to six feet in height: the woody part of the stem is rough, and of a brown colour; the young branches being of a pale green colour. The leaves are narrow, linear, entire and sessile. The flowers are pro-

duced on the young shoots, in terminal spikes of a bright blue colour; the corolla is tubular and labiate, divided into two lips, the uppermost bifid, and the lower one divided into three segments; the filaments are situated within the tube, supporting small simple anthers: the style, which is crowned with a bilobated stigma, terminates in the centre of four naked seeds.

There are two other varieties of Lavender, the *Angustifolia* and *Latifolia*, but they resemble this in their sensible properties, and it is of no material consequence if they be gathered indiscriminately.

The flowers are gathered when about to blossom, at which time, the corollas are surrounded by the calyx and bractæ, which are not separated, as they all possess an agreeable fragrant smell, and a warm bitterish taste, somewhat pungent.

The virtues of Lavender are extracted both by spirit and water, they yield a small quantity of very fragrant essential oil, of a light yellow colour, and pungent taste. This oil is procured in largest quantities from flowers which are fully blown, which should first be slightly dried. Rectified spirit when distilled from the flowers, becomes very fragrant, from the oil which it dissolves; its odour is improved by a second distillation, which constitutes lavender water, but this is commonly made by dissolving some Ol. Lavend., and other essential oils in rectified spirit. The leaves possess similar properties to the flowers, but in a very inferior degree.

The medical properties of Lavender are stimulant and tonic; it is thought to act chiefly on the nervous system, hence it has been recommended in different nervous affections,

as hysteria, paralysis, tremors of the limbs, &c. It is rarely, however, administered alone in any disease. Its chief use is as a perfume. Dose of the powder from ℥j to ʒj. Official Preparations. Ol: Lavand. Spir: Lavand. Spir: Lavand: Comp.





Menziesia Viridis

MENTHA VIRIDIS.

Spearmint.

Folia.

Class XIV. DIDYNAMIA.—Order I. GYMNOSPERMIA.

Natural Order. VERTICILLATÆ.

Generic Character. Corolla nearly equal, four-cleft; the broader segment emarginate. Stamens upright, distant.

Specific Character. Spikes oblong; leaves sessile, lanceolate, naked and serrated; stamens longer than the corolla.

THIS perennial plant is a native of Britain, growing in marshy situations and flowering in August: it is cultivated in considerable quantities for medicinal and culinary purposes.

The root is creeping and fibrous. The stem is square, erect, hollow, branched, and two or three feet in height. The leaves are opposite, lanceolate, pointed, and serrated, of a deep green colour, and placed on very short footstalks. The flowers are

small and disposed in terminal spikes, having lanceolate braeteæ longer than the flowers: the calyx is tubular, striated and divided into five pointed segments: the corolla is tubular and divided at the limb into four segments of a purple colour; the stamens are tapering, longer than the corolla, and furnished with roundish anthers: the style is slender, and erect, proceeding from a four-cleft germen, and terminating in an expanded stigma.

Spearmint for ordinary purposes, should be gathered when the flowers are about to open, but if for distillation, the flowers should be fully blown, as in this state they contain a larger proportion of essential oil.

Mint has an agreeable aromatic odour and a warm taste, slightly pungent: it is never used in its recent state, except for culinary purposes; drying does not impair either its flavor or odour. Water extracts its virtues by infusion, and by distillation it becomes impregnated with its essential oil, which possesses all the virtues of the plant. The oil, when first procured is of a yellow colour, but by keeping changes to a brownish red, and is not so agreeable as the plant itself. Rectified spirit imbibes all the essential parts of the herb, but it is a menstruum that can seldom be employed in consequence of the stimulating nature of the spirit.

Spearmint is a tonic and carminative. It has frequently been administered in the form of infusion in a weak and irritable state of the stomach to allay nausea, vomiting, &c. It was formerly thought to possess the power of counteracting the coagulation of the milk, but experience does not in any degree confirm such an opinion. The ancients were of opinion that it weakened the virile powers, but this is a mere speculative doctrine having no foundation in fact. The infusion of Mint

is a pleasant beverage in fevers, inflammatory diseases, &c. The essential oil is occasionally administered as a carminative, though inferior to many of that class. The distilled water is a common and agreeable vehicle for many more active medicines. Mint is scarcely ever given in substance, if used, the best form of it is a conserve. Official Preparations, Ol. Menth: Vir. Aq: Menth: Vir. Infus: Menth: Comp. Spir: Menth: Vir.



Mentha Piperita

MENTHA PIPERITA.

Peppermint.

Herba.

*Class XIV. DIDYNAMIA.—Order I. GYMNOSPERMIA.**Natural Order. VERTICILLATÆ.*

Generic Character. Corolla nearly equal, four-cleft, the broader segment emarginate. Stamens upright and distant.

Specific Character. Flowers capitate; leaves ovate, petiolate; stamens shorter than the corolla.

THIS species of Mint is a native of Great Britain, growing in moist shady situations; it is also cultivated in gardens for medicinal purposes, and is not at all impaired by being removed from its native soil.

The root is creeping. The stems erect, quadrangular, jointed, channelled, branched, and from two to three feet in height. The leaves are ovate, opposite, pointed, serrated, petiolate, and of a dark green colour. The flowers are in

terminal spikes, and divided into clusters: the calyx is furrowed with a base entirely naked, five-cleft, and ciliated; the corolla is of a purple colour and tubular, concealing the stamens within it: a slender style which is longer than the corolla, proceeds from a four-cleft germ, and supports a bifid stigma. There are two varieties of this species which do not materially differ from it in their general properties.

Peppermint has a more penetrating pungent taste than the other mints: its odour is also more diffusive and agreeable. Water or spirit extract the flavour and virtues of the plant. If gathered when the flowers are fully blown, it will yield by distillation with water a considerable quantity of essential oil, which is very penetrating and pungent; when first procured it is of a pale green colour, but by keeping becomes much darker, it contains a small quantity of camphor. This essential oil dissolved in spirit of wine constitutes the Essence of Peppermint. By distillation water becomes strongly impregnated with the properties of the plant and forms a very useful vehicle for unpalatable medicines. This plant is rarely employed alone; persons affected with flatulent hysterical colic occasionally have recourse to it as a warm aromatic stimulus. Dose ʒj to ʒj. Officinal Preparations, Aq: Menth: Pip. Ol. Menth: Pip. Spir: Menth: Pip.



Mentha Pulegium

MENTHA PULEGIUM.

Pennyroyal Mint.

Herba.

Class XIV. DIDYNAMIA. Order I. GYMNOSPERMIA.

Natural Order. VERTICILLATÆ.

Generic Character. Corolla nearly equal, four-cleft; the broader segment emarginate. *Stamens* upright and distant.

Specific Character. Flowers verticillate; leaves ovate, obtuse, sub-crenate; stems creeping and nearly round.

PENNYROYAL is a native of England, growing in meadows and on heaths, it is also cultivated for medicinal purposes.

The root is creeping and fibrous. The stems are slender, trailing, branched and rather downy. The leaves are ovate, obtuse, standing on short petioles, at the joints of the stems; they are of a bright green colour. The flowers are disposed in whorls at the joints of the stem, being small and of a purplish colour; the calyx is tubular, striated, beset with

hairs, and divided into five pointed, unequal segments: the corolla is much longer than the calyx, four-cleft, and of a purple colour; stamens longer than the corolla: in other respects it resembles the *Mentha Piperita*.

Penny-royal is a plant possessing properties very similar to the other mints, but not so agreeable as either; in taste pungent, but not aromatic. Its virtues are given out both to water and spirit by infusion and distillation. An essential oil may be obtained by distillation from the plant in flower, which is very pungent and volatile, possessing all the properties of the plant.

It was, formerly considered as a powerful emenagogue and antispasmodic, and recommended strongly in hooping cough, but its virtues are much more limited; indeed, it is not equal either to Peppermint or Spearmint, and is rarely exhibited by modern practitioners. It is a slight carminative, and as such may be given in flatulencies of the stomach and intestines, Dose ʒss to ʒij. Officinal Preparations, Aqua Pulegii, Oleum Pulegii, Spiritus Pulegii.



Digitalis Purpurea

DIGITALIS PURPUREA.

Purple Foxglove.

Folia.

*Class XIV. DIDYNAMIA. Order II. ANGIOSPERMIA.**Natural Order. LURIDÆ.*

Generic Character. Calyx five-petalled. *Corolla* bell-shaped, five-cleft, bellying. *Capsule* ovate, two-celled.

Specific Character. Segments of the calyx ovate, acute; corolla obtuse, upper lip undivided; leaves downy.

DIGITALIS grows about hedges and thickets, more particularly in gravelly soils and high dry situations; flowering from June to July; it is also cultivated as an ornament to our gardens.

The root is biennial, knotty and fibrous. The stem upright, tapering, roundish, leafy, and about four feet high. Leaves slightly serrated and wrinkled, generally on winged footstalks, alternate, having a dark green upper surface, and the lower one downy: the radical ones are egg-shaped; the upper ones spear-shaped. Flowers numerous and generally

grow from one side of the stem; they are pendulous and supported on round footstalks, accompanied by a bractea: calyx downy: corolla tubular, somewhat bell-shaped, of a purple colour and assuming a mottled appearance within, slightly lobed at the margin; the filaments spring from the tube and support large, two-lobed anthers: germen ovate, supporting a simple style, with its summit cloven.

From inattention to the proper time of gathering the leaves, those of other plants have been mistaken for Foxglove, but such errors may easily be avoided by never collecting the plant till it is in flower, in which state it is most active in its operation. Immediately the leaves are gathered the midrib should be removed with a pair of scissars, when the whole must be dried as speedily as possible, and if practicable this should be effected with the exclusion of light. When perfectly dry they must be preserved in dark situations, free from air and moisture, otherwise they will lose their beautiful green appearance, and become much less active. It is proper to have a fresh supply annually, and we would recommend practitioners, if possible to superintend the gathering and drying of the leaves themselves.

The whole plant possesses some degree of activity, but the leaves are by far the most active parts, and as such are alone employed medicinally. They have a nauseous bitter taste, and when dried a peculiar narcotic odour. Both watery and spirituous menstrua extract their virtues.

The action of *Digitalis* upon the animal œconomy is somewhat peculiar, and it proves destructive to animals in comparatively small quantities. If the infusion be administered to a dog, it occasions nausea, vomiting, considerable distress and restlessness, watery fœces, tremors, faintings, convulsions and

death. These symptoms shew themselves whether the Fox-glove be taken into the stomach, or applied to a wound on the surface of the body, its operation indeed is most active in the latter instance. If an over-dose be administered to the human subject it excites nausea, vomiting, diarrhoea, giddiness, dimness of sight, slow pulse, cold clammy perspirations, great anxiety of countenance, faintings, and sometimes convulsions and death. These symptoms may also be occasioned by the continuance of the medicine even in small doses if it be persevered too long, for it is a medicine which is very apt to accumulate in the system, and it will suddenly exert its influence upon the heart and arteries, and occasionally destroy the patient by its powerful sedative operation; the action of the heart ceases before respiration is suspended. From the circumstances stated above, we ought never to administer this medicine without having the patient under our eye, or giving the necessary directions as may prevent such symptoms from appearing. We readily judge to what extent it may be carried by its effects upon the system, for when it occasions either nausea, vertigo, dimness of sight, great diminution in the frequency, or irregularity in the pulse, we have arrived at the maximum dose, and it will be proper to suspend the employment of it for the present. Even if no sensible effects should follow its exhibition, it would not be proper to continue it for any considerable length of time, as it may be accumulating in the system. In cases of poisoning by *Digitalis*, if but lately taken an emetic of speedy operation should be given, succeeded by a laxative to expel any which may have been propelled into the intestines. After the operation of the emetic it will be advisable to give stimulants, as brandy, ammonia, wine, &c., and if the nausea, which is often very distressing, should continue, it is proper to ad-

minister small and repeated doses of opium ; and if this fail, apply Catapl: Sinapis to the stomach.

The Foxglove was first noticed in the fifteenth century, and has been more or less used ever since, but from the very distressing and even fatal symptoms, which sometimes resulted from its exhibition, they were induced almost entirely to lay it aside, it has never however fallen into total disuse.

The medical virtues of this plant are sedative and diuretic. In most inflammatory diseases the *Digitalis* may be administered with advantage, as it acts directly upon the heart, diminishing its irritability and frequency of action. It has however been more particularly beneficial in inflammation of the lungs and heart, and their membranes. In hæmorrhages from the lungs and uterus, it will be frequently useful, by retarding the flow of blood: and in phthisis it is a remedy frequently beneficial as a palliative, and if taken in the incipient stages it may effect a cure, with the aid of other medicines.

But our attention has been directed to its utility more particularly in dropsies, by Dr. Withering*, who has given to the world a valuable treatise on the medical uses of *Digitalis*. He has recommended it in the different species of the disease, and has given cases where its exhibition has been attended with the most favourable results. Since his time other practitioners have employed it with equal success, and it has at length become one of our most common and useful remedies in those diseases. It occasions a considerable increase in the secretion of the urine, which is so desirable, and often so difficult to effect. The precise manner in which it operates, is involved

* To this author we are indebted for the plate introduced here, which was copied from his work.

in obscurity, and it is not determined whether it acts immediately upon the kidneys, or whether, (as is most probable) the increased flow of urine is the result of its operation on the system generally. The efficacy of the *Digitalis* will depend on the extent and cause of the disease; whether it be connected with any organic mischief, or whether it be only the result of increased secretion from the exhalents, &c. in the former case, we cannot expect a radical cure, but in the latter we have reason to expect it, unless any unforeseen circumstances should occur to prevent it. In hydrocephalus its activity is very doubtful, but it is proper to give it a trial. The utility of this medicine is not so evident as we might be led to expect, in persons of robust habit, strong full pulse, and florid complexion; but on the contrary it is most beneficial and certain in its operation in patients of an exsanguine countenance, with a weak quick pulse, and other signs of debility. The dose should be from grj. to grij. three or four times daily, this is to be continued cautiously, according to its effects, as mentioned above. During the exhibition it is proper to allow the patient a free use of diluents, the most effectual preparation is the Watery Infusion of the London Pharmacopœia, which may be given in doses of ʒss. three times a day. In strong robust constitutions it will be proper to precede its use by venesection and saline purgatives.

It has been recommended as an external application to tumors and ulcers of a scrophulous nature, but if applied to any wounded surface, it must be with caution, or the result may be dangerous. Official Preparations, Infus: Digit. Tinct: Digit. Decoct: Digit.



Cochlearia Armoracia

COCHLEARIA ARMORACIA—RAPHANUS
RUSTICANUS.

Horse Radish.

Radix.

Class XV. TETRADYNAMIA.—Order I. SILICULOSA.

Natural Order. SILIQUOSÆ.

Generic Character. Silicle emarginate, turgid, scabrous. *Valves* gibbous and obtuse.

Specific Character. Radical leaves lanceolate, crenate; leaves of the stalk incised.

HORSERADISH is a perennial plant, growing in wild and moist situations as ditches, &c.; it is also cultivated, in considerable quantities.

The root is long, tapering and of a white colour; the stem is round, branched, and two or three feet in height. The radical leaves are large, lance-shaped, waved, and stand on long footstalks; those on the stem are much smaller, sessile, narrow and often divided at the edges. The flowers are

numerous, white and in terminal clusters; the calyx is composed of four segments which are oval, concave, spreading, and deciduous: the corolla is composed of four obovate petals, twice the length of the calyx and inserted by narrow claws; the filaments are tapering and support blunt, compressed anthers; the germen is heart-shaped, from which proceeds a simple, short permanent style and an obtuse stigma.

This root has a very pungent acrid taste, with a slight degree of sweetness; its odour also is both penetrating and pungent. Its acrimony is very much diminished by drying, for it appears to reside in a very volatile, essential oil; this oil may be procured by distillation; it is of a yellow colour and excessively pungent to the taste. The water employed in the process, becomes also very pungent; spirit when distilled from this root becomes very acrid and pungent. The activity of the plant may be extracted by spirit or water, simply by infusion; whilst a decoction is comparatively inert.

This root is rather a powerful stimulant, whether applied internally or externally; it is also a sudorific and diuretic. Its chief use is in paralytic affections and chronic rheumatism, connected with a languid circulation from a deficiency of stimulus in the system; its external application will also prove beneficial in these cases. In sore throats depending on debility and relaxation of the uvula and soft palate, a weak infusion may be employed with advantage. This root like several of our diuretics has had a lithontriptic power ascribed to it, but its use in this disease only depends on the increased flow of urine which it occasions, for it possesses no more power in dissolving calculi than common water. Conjoined

with other diuretics it may be employed with advantage in some species of dropsies, where connected with an indolent habit, and no symptoms forbid its exhibition. By the ancients it was employed in several diseases, as rheumatic gout, scurvy, &c. As an external application it is sometimes very valuable, for there are cases in which it is desirable to produce vesication and external irritation, where blisters would prove highly injurious: it must however be employed with caution, or very troublesome ulcers will be the result. As an article of food horseradish is taken daily, and is thought to aid the process of digestion by its stimulating action on the stomach. It has been recommended by some authors in cutaneous affections. Dose ℥j. to ʒj. Officinal Preparations Spir: Armor: Comp. Inf: Armoraciæ Comp.



Sinapis nigra

SINAPIS NIGRA-SINAPI.

Common Black Mustard.

Semina.

*Class XV. TETRADYNAMIA. Order II. SILIQUOSA.**Natural Order. SILIQUOSÆ.*

Generic Character. Calyx spreading. Corolla claws erect. Gland between the shorter stamens and pistil, and the longer stamens and calyx.

Specific Character. Siliques smooth, pressing on the stem.

MUSTARD is an indigenous plant very common in corn fields and by the road side; it is cultivated for culinary and medicinal purposes.

The stem is erect, branched and about three feet in height. The leaves are variously shaped and incised; those near the root are large, rugged, and pinnatifid, the upper ones are narrower, and commonly hang down; the whole are beset with hairs. The flowers are yellow and small, terminating the branches: the calyx is composed of four expanding, deciduous segments; the corolla consists of four roundish, spreading petals: the filaments are erect, tapering, and support simple anthers: the seed-vessels are smooth and inclined towards the stalk, and possessing many seeds.

The *Sinapis Alba* possesses properties perfectly similar

to the *S. Nigra*, so that they may be employed indiscriminately without any inconvenience.

The seeds are small, roundish, of a dark brown colour; they have a warm, biting, and somewhat bitter taste, and a penetrating odour. By expression they afford a bland oil, which is nearly as insipid and of as mild a nature as Olive Oil, for the pungency still resides in the seeds, which are more acrid than before the expression. If boiling water be poured upon the bruised seeds, it becomes impregnated with the acrimony; but alcohol extracts their virtues very imperfectly. By distillation with water, they afford a limpid essential oil, heavier than water, of an extremely pungent and penetrating odour and taste.

Mustard is stimulant, diuretic and emetic. It has been administered in several diseases on account of its stimulant nature, as in paralysis, chronic rheumatism, &c., and as a diuretic in dropsies. Its operation is very similar to the *C. Armoracia*, and it may be employed in any case which indicated the utility of that medicine. It has been prescribed with benefit in intermittents, but it would not answer as a general remedy in this disease, for by its stimulant operation, in many cases, the symptoms would be aggravated. As a stimulant emetic it is useful, especially where we wish to evacuate the stomach speedily.

Its chief medicinal employment is externally, it proves a more useful and manageable rubefacient than the horse-radish. Applied to the pit of the stomach in obstinate cases of vomiting and hiccough it will frequently suspend these distressing symptoms, after every other remedy has failed. A mustard poultice applied to the soles of the feet in Typhus, and other fevers, connected with delirium or coma, will often give the greatest relief: and in very violent head-aches this application will often materially relieve the sufferings of the patient. A liniment of mustard will prove an useful stimulating application to joints affected with chronic rheumatism. Dose from ʒss. to ʒij. Official Preparations Cataplasma Sinapis.



Althaea officinalis

ALTHÆA OFFICINALIS—ALTHÆA.

Marshmallow.

Folia et Radix.

Class XVI. MONADELPHIA. Order VIII. POLYANDRIA.

Natural Order. COLUMNIFERÆ.

Generic Character. Calyx double; the exterior six or nine cleft. Capsules numerous, one-seeded.

Specific Character. Leaves simple, downy.

THE Marshmallow, as its name implies, grows wild in marshes, and other moist situations, flowering from June to August.

The root is perennial, long, fibrous, and of a white colour. The stem is upright, round, downy, about three feet high, and branched towards the top. The leaves are alternate, petiolate, heart-shaped, pointed, serrated, and downy. The flowers proceed from the axillæ of the leaves in thick panicles; the calyx is double, the exterior being divided into about nine segments, and the interior into five: the filaments are numerous, united at their bases, and supporting kidney-shaped anthers: the germen orbicular bearing a cylindrical style, which supports many stigmas: the seeds are numerous and uniform.

Every part of the Marshmallow abounds with a mucilaginous matter, which possesses scarcely smell or taste. The roots contain the greatest proportion of this mucilage, from which alone it is extracted for medicinal purposes. By boiling the sliced roots in water the whole of the mucilaginous parts may be extracted; this is the chief preparation procured from the plant. It is occasionally employed as a demulcent and emollient, viz. in those cases where any thing acrid exists in the stomach and intestines, also in nephritic complaints, accompanied with pain and irritation in the passage of the urine, depending either on the too great acrimony of that secretion, or a peculiar irritability of the bladder or urethra.

It may occasionally be administered in the form of clyster with advantage: as where there is much irritation of the bowels in dysentery, and where the presence of any irritating substances in the large intestines, causes tenesmus, &c. the decoction should either be given alone or combined with opium.

The leaves by decoction afford a preparation of similar properties, and applicable in such cases as require the use of mucilaginous fluids; they contain the mucilage in less proportion, and consequently are seldom employed. Dose of the Decoction ad libitum. *Officinal Preparations* Decoct. *Althææ Officinalis*, *Syrupus Althææ*.



Polygala Senega

POLYGALA SENEGA.

Rattlesnake Root, Milk Wort.

Radix.

Class XVII. DIADELPHIA. Order III. OCTANDRIA.

Natural Order. LOMENTACEÆ.

Generic Character. Calyx five-cleft; with two of the leaflets wing-shaped and coloured. Legume obcordate, two-celled.

Specific Character. Flowers beardless in spikes; stalk erect, perfectly simple, herbaceous; leaves ovate, lanceolate.

THE Seneka is a native of Virginia, Pennsylvania, and other parts of North America, flowering in June; it is also cultivated in our gardens.

The root is woody, branched, knotty, and covered with an ash-coloured bark. From the root proceed several simple, erect, slender, round stems, which are of a reddish colour, and about a foot in height. The leaves are petiolate, lance-shaped, pointed, alternate, and of a pale green colour. The flowers are in terminal spikes, papilionaceous, and of a white-colour; the calyx is divided into three narrow, persistent segments: the filaments are united at the base into two portions, supporting simple anthers: germen oblong, with simple style, and cloven stigma.

The Seneka root has a pungent taste, producing an in-

creased flow of saliva when masticated, and occasioning a burning heat in the fauces; with scarcely any odour.

The most active part of the plant resides in the bark of the root, and may be obtained by infusing it, when bruised, in water or spirit.

From the celebrity which this drug had acquired amongst the American Indians, in the cure of bites from the rattlesnake and other serpents, the attention of practitioners was directed to it as a remedy worthy of trial in other diseases, especially affections of the chest; but in pulmonary affections, it must be administered with great caution, for although it may prove an useful expectorant in some chronic cases, unconnected with inflammatory symptoms, yet there are many persons who would be injured by its exhibition; for it possesses some degree of stimulating power, which might occasion pneumonia or hæmoptysis. It has also been advised in asthma and dropsies, and occasionally beneficial results follow its employment; but as a general remedy in these diseases, more particularly the latter, we cannot recommend it. Within the last few years our attention has been directed to it as a valuable remedy in croup, by promoting the expectoration of the lymph secreted in this disease. It will certainly be highly improper in the inflammatory stage; but when the increased action has subsided, and the patient is suffering from the accumulation of mucus or lymph in the trachea, it may be given with some hope of advantage: we would generally have it given in combination with *ipécacuan*, *antimony* or some other useful adjuvant. For the bites of the rattlesnake it is employed both internally and externally. The dose of the powder is from ℥j to ℥ij. *Officinal Preparations* Decoct. negæ.



Spartium Scoparium

SPARTIUM SCOPARIUM.—GENISTA.

Common Broom.

Cacumina et Semina.

*Class XVII. DIADELPHIA. Order IV. DECANDRIA.**Natural Order. PAPILIONACEÆ.*

Generic Character. Stigma longitudinal, villous above. Filaments adhering to the germen. Calyx produced downwards.

Specific Character. Leaves ternate, solitary; branches unarmed, angular.

THE Broom is an indigenous shrub, very common upon heaths, and in sandy uncultivated situations, flowering in May.

The root is tough and woody. The plant commonly rises from four to six feet in height, dividing into numerous angular, green tough branches. The leaves are small and ternate with oval leaflets. The flowers are large, papilionaceous, axillary, solitary, peduncled, and of a golden yellow colour: the calyx is tubular, bilabiate, the upper lip entire, the under one notched; the filaments are all united at the base except one, and support oblong anthers: germen, oblong, and hairy, with a slender curved style, and oblong stigma.

The tops of the Broom possess a nauseous bitter taste, with scarcely any odour. They give out their active principles both to water and spirit, by infusion, but the watery infusion is generally preferred, from being the least stimulating.

This plant has been long known as a domestic remedy in dropsies, and from the circumstance of its having occasionally cured the disease, practitioners were induced to try its efficacy, and in some cases its exhibition has been followed by beneficial results. It acts mildly upon the bowels and kidneys. Dr. Cullen has cured dropsies by the repeated employment of the Broom.

The leaves, flowers, and seeds possess properties similar to the young twigs, but being less active are seldom employed.

The ashes of the plant were once much employed as a diuretic, combined with some vegetable acid: it was thought they possessed peculiar properties, but their operation depended on an alkaline salt, which may be procured from numerous other vegetables, having the same properties from whatever plant it may have been procured.

The decoction and extract may be employed as adjuvants in dropsies, though not generally sufficiently active to cure the disease alone. Dose ℥j. to ʒj. Officinal preparation, Ext. Cacuminum Genistæ.



Glycyrrhiza Glabra

GLYCYRRHIZA GLABRA.

Common Liquorice.

Radix.

*Class XVII. DIADELPHIA.—Order IV. DECANDRIA.**Natural Order. PAPILIONACEÆ.*

Generic Character. Calyx bilabiate; upper lip three-cleft; lower one undivided. *Legume* ovate, compressed.

Specific Character. Legume glabrous; stipules wanting; leaflets petiolated, with an odd one.

THIS plant is a native of the southern countries of Europe, and is plentifully cultivated in our gardens for dietetic purposes, flowering in August.

The root is long, flexible, tough, and succulent; externally of a brown colour, and internally yellow. The stem is four or five feet in height, herbaceous and striated. The leaves are alternate and pinnate, composed of four or five pair of ovate, entire, blunt, petiolate leaflets of a pale green colour, with a terminal one. The flowers proceed from the axillæ of the leaves in long spikes, and are of a bluish colour: calyx persistent and tubular, divided into narrow segments: the corolla is composed of an erect, lanceolate, obtuse *vexillum*, two oblong obtuse *alæ*, and a *carina*, about the length of the calyx; nine of the filaments are united at the base, and all are furnished with simple, round anthers: style tapering, supporting a blunt stigma, and terminating in a short germen: the legumes are ovate and flattened, containing small, kidney-shaped seeds.

Liquorice root varies in size, is covered externally with a brown cuticle, and is internally of a yellow colour: it has a sweet mucilaginous taste, which is given out to water by infusion or decoction, but if the boiling be continued too long, the sweetness is much impaired; it is destitute of odour. When carefully dried and powdered, it should be of a brownish yellow colour, and of a pleasanter taste than the fresh root; but is rarely obtained in this pure state; for it is frequently adulterated with articles of inferior value.

By inspissating the decoction in a gentle heat, a very pleasant sweet extract may be obtained, much superior to any sold in the shops, whether made in this country or imported; for the foreign extract is generally made from those roots which are unsaleable, and is mixed with impurities, as sand, &c.

The properties of liquorice chiefly depend on the saccharine matter it contains, which is mixed with a small proportion of mucilage. Alcohol merely extracts the saccharine matter without the mucilage: the spirituous extract is therefore sweeter than the watery, and afforded in less proportion.

Its medicinal virtues are but limited. It is a mild demulcent, but from the small proportion of mucilage it contains, is seldom employed as such, except in combination with other medicines. It is most commonly employed to disguise the taste of unpalatable medicines, and is rarely administered alone, except in slight coughs in the form of troches.

The extract of commerce is generally in roundish rolls, covered with leaves; when good it is of a perfectly black colour and brittle, breaking with a glassy fracture; and if pure will entirely dissolve in water. Dose of the powder ℞j. to ʒj. Official preparation, *Extractum Glycyrrhizæ*.



Asparagus Tragacantha

ASTRAGALUS TRAGACANTHA.

Goat's Thorn, Milk Vetch, Tragacanth.

Gummi.

Class XVII. DIADELPHIA. Order IV. DECANDRIA.

Natural Order. PAPILIONACEÆ.

Generic Character. Legume generally two-celled, gibbous.

Specific Character. Caudex aborescent; petioles spiny.

THIS plant is a native of Candia, and other eastern countries, flowering from May to July; it also grows in the southern parts of Europe.

It is about two or three feet in height, with branches, shrubby, procumbent stems, which are covered with imbricated scales and spines. The leaves are pinnate, consisting of numerous pairs of opposite, oblong leaflets, the footstalk terminating in a sharp point. The flowers are small, yellow, and proceed from the axillæ of the leaves: the calyx is tubular, and divided at the rim into five segments: the corolla is papilionaceous; nine of the filaments are united, the other is separate; germen roundish with a tapering style and blunt stigma; the seeds are kidney-shaped.

In the heat of summer a gummy matter exudes from the

bark of the trunk and branches, which by exposure soon hardens into irregular lumps or tears; and this is the Gum Tragacanth of the shops. It is imported in the greatest quantities from Turkey.

There are other species of *Astragalus* that yield Tragacanth, and naturalists have scarcely decided from which plant the gum is chiefly procured. It is known, however, that the gum possesses similar properties from whatever tree it may be obtained.

This gum should be white, semi-transparent, rather tough; it is without smell, and has only a slightly bitter mucilaginous taste. An inferior article is to be bought, which is of a brownish red colour, but should never be employed medicinally.

Tragacanth cannot be pulverized, unless it be previously dried. When mixed with water in but a small proportion, it converts it into a kind of jelly, not however, of an uniform appearance, but more of a curdly nature; it requires some time to absorb the water, and acquire this form. The property which Tragacanth has of rendering water so thick in such small quantities is peculiar to this species of gum; on which account it is frequently preferred to the gum arabic, particularly in the preparation of lozenges. It is a mild and useful demulcent in many cases, as in stranguary, gonorrhœa, &c., also in tickling coughs and other affections that may require the use of demulcents, the Tragacanth is very applicable. Its chief employment is a vehicle for other medicines, and for certain pharmaceutical purposes. Dose gr. x. to 3j. Officinal preparations, Mucilago Astragali Tragacanthæ, Pulvis Tragacanthæ Compositus.





Citrus . Medica

CITRUS MEDICA—LIMON.

Lemon Tree.

Limonēs, et Limonum Cortex.

Class XVIII. POLYADELPHIA. Order III. ICOSANDRIA.

Natural Order. POMACEÆ.

Generic Character. Calyx five-cleft. *Petals* five, oblong. *Anthers* twenty; the filaments united into various parcels. *Berry* nine-celled.

Specific Character. Petioles linear.

THE Lemon Tree is a native of many parts of Asia; it has also been cultivated in the warmer countries of Europe, and is not unfrequently to be met with in our green-houses.

This beautiful evergreen is of rather diminutive size, sending off several branches, which are covered with a gray bark. The leaves are alternate, pointed, ovate, a little undulated at their margin, and placed on naked footstalks. The flowers are large, placed on simple, branched peduncles, proceeding from the smaller branches: they continue the greater part of the summer, and are odoriferous; calyx saucer-shaped, and divided at the brim into five-pointed teeth; petals oblong, concave, white internally, with a purplish tinge externally; filaments united at the base, commonly into four parcels, supporting yellow anthers: germen superior, roundish, with a simple style and globular stigma. The fruit is an oval berry,

pointed at each extremity, externally rough, and of a yellow colour, internally divided into several cells filled with an acrid juice.

There is some variety to be observed in the form, size, and external character of the lemon, as growing in different situations; the acidity of the juice is subject to variation, being at one time quite mild, and at another time very tart.

Lemons are of an oval form, and are externally covered with a yellow rind, filled with numerous small follicles; under this is an insipid rind, which incloses an acid pulp, divided into cells.

The external yellow rind, in its recent state, has a fragrant odour, and a pungent, aromatic, agreeable taste, depending on the essential oil which it contains; hence its medical virtues are much impaired by drying. It yields by distillation a small quantity of very light essential oil, nearly colourless, possessing similar properties to the rind: this oil is generally imported, being seldom procured in this country.

The expressed juice of lemons has a very grateful acid taste; it is composed of citric acid, mucilage, extract and water. Considerable quantities of the juice are imported from those countries in which lemons abound. After expression, the mucilage, fœcula, &c. are allowed to subside; it is then put into vessels which are well stopped. But as it is apt to become mouldy by keeping, and from its not being always free from adulteration, we would recommend that for medicinal purposes the juice be always recently expressed from the lemons. Where the juice was required for long voyages, the custom was to expose some, recently expressed, to a cold mixture, in order to freeze out all the water; and

by repeating this process, it became so concentrated as to keep good for years, but now this process is unnecessary.

When the acid is required for long voyages we employ the crystallized acid, commonly called Citric Acid; this may be readily procured in the manner directed by the London College of Physicians. This acid possesses all the essential properties of lemon juice, without being subject to any of its disadvantages.

The rind of lemons is a mild agreeable stomachic, and is frequently used to improve the flavour of bitter infusions; it is, however, rarely administered alone.

The juice of lemons, or citric acid, is an useful antiseptic and refrigerant. When sufficiently diluted and rendered palatable with a little sugar, it forms an useful beverage in fevers and some inflammatory complaints, attended with distressing thirst. Combined with carbonate of potass, in the proportion of $\mathfrak{zj}$. to $\mathfrak{zfs}$. of juice, with the addition of some aromatic water, it forms a pleasant and useful draught in nausea and sickness at the stomach; also as a diaphoretic in fevers: this combination is very useful in allaying thirst. The citric acid is a serviceable remedy in scurvy, if it be conjoined with a suitable diet. In purpura hæmorrhagica the lemonade is a most desirable beverage. Lemon juice, in which muriate of soda is dissolved, has been strongly recommended in dysentery, and there are cases in which its exhibition has been attended with benefit. Combined with wine or spirit it is useful in low fevers, connected with petechiæ. In malignant sore throats it may be used as a gargle. Dose $\mathfrak{zj}$. to $\mathfrak{zfs}$. Official Preparations. *Of the Juice*; Acidum Citricum, Syrupus Limonum. *Of the Peel*; Aqua Citri Medicæ.

CITRUS AURANTIUM—AURANTIUM HIS-
PALENSE.

Orange Tree.

Fructus cortex, Fructus immaturus et Flores.

Class XVIII. POLYADELPHIA. Order III. ICOSAN-
DRIA.

Natural Order. POMACEÆ.

Generic Character. Calyx five-cleft. *Petals* five, ob-
long. *Anthers* twenty, the filaments united into
several parcels. *Berry* nine-celled.

Specific Character. Petioles winged, leaves acu-
minated.

THIS evergreen is a native of Asia; but it is also cultivated
in the warmer countries of Europe, and in the West-Indies :
it is not unfrequently planted in our hot-houses.

This tree very much resembles the lemon in its general
appearance. The leaves are smaller, more pointed, entire,
and furnished with wings on the footstalk. The flowers ap-
pear all the summer; they are large, white, and proceed
from the smaller branches, upon simple branched pedicels;
the corolla, calyx, and parts of fructification, much resemble
those of the lemon. The fruit is globular, rough, of a deep



Citrus Aurantium

yellow colour externally, and internally filled with a bitter acid pulp, divided into cells, and containing several oblong striated seeds.

The Seville oranges are alone directed in the Pharmacopœias; but the China or sweet oranges being more palatable, are very frequently employed to allay thirst, &c. : the peel is much less fragrant than that procured from the Seville oranges.

The rind or bark of the orange resembles, in its external appearance, that of the lemons. Orange peel has a grateful bitter aromatic taste and a fragrant odour; depending on an essential oil, which may be readily obtained by distilling the fresh peel in water. This oil is very fragrant and aromatic, and possesses all the properties of the peel, with the exception of its bitterness; the water becomes at the same time impregnated with the agreeable odour of the rind. By infusing the rind, either in spirit or water, its bitter and aromatic principles may be extracted. The watery infusion is an useful stomachic in dyspeptic patients; but it is generally necessary to combine it with some other bitter. Murray mentions its utility in intermittents, when given in substance; but modern practitioners never employ it in that disease.

The recent juice of the Seville orange has a grateful, acid taste, with some degree of bitterness; its properties are similar to the juice of lemons, but from its being less palatable, and containing a smaller proportion of citric acid, is less frequently employed for medical purposes. The juice is in common use for making wine, and the peel is often preserved in sugar as a sweetmeat.

The flowers are highly fragrant, and chiefly used from their possessing this property, for they contain but little of the bitter

principle; they give out their flavour both to water and spirit by infusion; but the distilled water possesses most fragrancý. An essential oil may be procured from them, which is highly fragrant, and of a red colour; but on account of its high price, is generally adulterated previous to its importation into this country.

The unripe berries, called Curaçoa oranges, when first gathered, are rather tart and fragrant; but upon being dried they lose all acidity, and become bitter, and of a greenish brown colour. They are more powerfully stomachic than the dried rind.

The leaves possess some fragrancý and bitterness, and have been recommended in epilepsy, but are rarely employed at the present day. Dose *of the dried peel* ℥j. to ʒj. Official preparations. *Of the juice*; Succus Cochleariæ comp. *Of the rind*; Infus. Aurant: comp. Tinct: Aurant. Syrupus Aurant. Conf: Aurant. Aqua Citri Aurant.



Melaleuca Leucadendron

MELALEUCA LEUCADENDRON.

Cajeput Tree, or Aromatic Melaleuca.

Oleum essentielle.

*Class XVIII. POLYADELPHIA. Order IV. POLYANDRIA.**Natural Order. HESPERIDEÆ.**Generic Character. Calyx* five-parted, half superior.*Corolla* five-petalled. *Filaments* numerous, united into five bodies. *Style* one. *Capsule* half-covered by the calyx, three-celled.*Specific Character.* Leaves alternate, lanceolate, somewhat falcated, five-nerved ; spikes elongated.

THIS tree is common in Amboyna, and other of the Molucca Islands, growing in elevated situations.

It is a moderate-sized tree, dividing into several branches, and covered with a lamellated rough bark, of a pale colour. The leaves are lanceolate, entire, smooth, standing on short petioles ; they have a grateful odour, and are of a pale, yellowish green colour. The flowers are white, sessile, and disposed in terminal spikes ; the bractæ are small and ovate ; the calyx tubular, five-toothed, deciduous, and of a brownish red colour ; the petals are roundish, concave, and larger than the calyx ; the filaments are long, filiform, and divided into five or six bundles, which are inserted into the tube of the calyx, and support ovate anthers ; germen, inferior, and roundish, with a slender style longer than the filaments.

It was for a long time a matter of doubt from what plant, and also from what part of the plant the Cajeput oil was procured. But it is now satisfactorily ascertained to be the pro-

duct of the above tree. It is procured from the fresh rind and leaves of the tree, but is most abundant in the latter. They are first bruised and macerated for about twelve hours in water, and afterwards submitted to distillation.

The oil is of a green colour, limpid, and possessing a very fragrant odour, and a warm pungent taste; it is very volatile, and burns without leaving any residue. Its green colour is thought to depend on the presence of copper, as it is lost if re-distilled. It is imported in copper vessels, and probably derives its colour from them: we have it chiefly from the East-Indies.

On account of its great price it seldom reaches this country in its pure, unadulterated state. Sometimes the oil of cardamoms, in which some camphor has been dissolved, and to which some green colour has been imparted is exposed to sale as the genuine. It is sometimes adulterated with oil of turpentine.

The genuine oil is a powerful stimulus, diaphoretic, and antispasmodic. If a few drops be taken into the stomach, it occasions a sensation of warmth, which is generally succeeded by a profuse perspiration; and from this circumstance it has been recommended in rheumatism, gout, dropsies, and some nervous affections. It is, however, possessed of no particular virtue which is not resident in many other less expensive essential oils, and is therefore rarely administered. It is sometimes applied externally to gouty and rheumatic joints as a stimulant; but it is very doubtful whether oil of turpentine might not be used with equal benefit. It is a remedy frequently employed amongst the Indians, and also on the continent, in many diseases; but it has not yet come into general use in this country. Dose from gtt. ij. to gtt. x.



Leontodon Taraxacum

LEONTODON TARAXACUM.

Taraxacum Dandelion.

Radix.

 Class XIX. SYNGENESIA.—Order I. ÆQUALIS.

Natural Order. COMPOSITÆ.

Generic Character. Receptacle naked. Calyx double.
Pappus stipitate and hairy.

Specific Character. Outer calyx reflect; scape one-flowered; leaves runcinate, smooth, with toothed lobes.

THE Dandelion is a very common plant in all parts of England, growing in almost every situation, and flowering from April to August.

The root is fusiform, of a dark colour externally, and internally white. The leaves all proceed from the root; they are narrow, runcinate, and deeply incised. The flower-stalk is simple, erect, and smooth, abounding with a milky juice; it supports a single flower, which is large and of a golden yellow colour; the calyx is smooth, the exterior scales being turned downwards: the florets are numerous and toothed at the extremities. The seed-vessel is globular.

A milky juice resides in the root, leaves, and flower-stalk, but more particularly in the former. It is of a bitter sweetish

taste, and when inspissated to a proper consistence is the best preparation that can be procured from the plant. For if we give it in substance, the dose must be so large, that we should have some difficulty in prevailing on our patients to take it.

The root gives out its virtues to water by infusion. On the continent, the leaves are bleached, and eaten as salad.

The Dandelion is a diuretic and slight aperient. It has been long known to possess these properties, and practitioners occasionally employ it in dropsies. The continental physicians are in the habit of prescribing it in hepatic affections, as jaundice, &c. The extract or inspissated juice may either be given in pills, or made into a draught, according to the nature of the complaint. Dose ʒss. to ʒj. *Officinal Preparation, Extr. Taraxaci.*



Artemisia Absinthium

ARTEMESIA ABSINTHIUM—ABSINTHIUM VULGARE.

Folia et Cacumina.

Class XIX. SYNGENESIA. Order II. SUPERFLUA.

Natural Order. COMPOSITÆ NUCAMENTACEÆ.

Generic Character. Receptacle sub-villous or almost naked. *Pappus* wanting. *Calyx* imbricate, with roundish converging scales. *Corolla* without rays.

Specific Character. Leaves compound, multifid; flowers sub-globose, pendulous; receptacle villous.

THIS indigenous plant grows in uncultivated places, by the road side, &c.; flowering in August. It is cultivated in the physic gardens, in the neighbourhood of London, for medicinal purposes.

The root is fibrous and woody. The stems are two or three feet high, furrowed, angled, and divided into several branches. The leaves are compound, variously divided into oblong, blunt, leaflets, of a pale green colour above, and downy beneath. The flowers are pedicillated, nodding, and placed in numerous alternate spikes: they are of a brownish yellow colour; the calyx is composed of several oval scales; the florets of the ray are few, whilst those of the disk are numerous; the receptacle is downy.

Wormwood has a very strong unpleasant odour, with an intensely bitter nauseous taste, and this unpleasant flavour is communicated to the milk of those animals who feed upon it, rendering this secretion so unpalatable, that the young will not suckle. Water and spirit extract the odour and bitter principle of the plant. By distillation it yields an essential oil possessing the nauseous smell and taste of the wormwood without its bitterness.

The Absinthium is a warm stomachic; and is said to possess anthelmintic properties. It used to be employed in intermittent and dropsical complaints. But since the introduction of more effectual remedies, it has been rarely used. The watery extract or decoction are the best preparations of the plant. Conjoined with other herbs, it forms an useful cataplasm, of a slightly stimulating nature, a very good application to foul ulcers, sloughing buboes, &c; it both improves their appearance, and corrects the fetor of the discharge. Dose ℥j. to 3j.

There are three other species of *Artemesia* in the *Materia Medica*, viz. the *A. Abrotanum*, *A. Santonica*, and *A. Maritima*; but from the similarity of their properties it is unnecessary to describe them, more especially as they are rarely used medicinally.



Tussilago Farfara L.

TUSSILAGO FARFARA.

Common Coltsfoot.

Folia et Flores.

Class XIX. SYNGENESIA. Order II. SUPERFLUA.

Natural Order. COMPOSITÆ.*Generic Character.* Receptacle naked. Pappus simple.*Calyx* scales equal, as long as the disk, somewhat membranaceous.*Specific Character.* Scape one-flowered, imbricate; leaves subcordate, angular and toothed.

THIS perennial indigenous plant is very common in moist situations, especially in clayey soils; flowering in March and April.

The root is long, round, and creeping, sending off furrowed, downy, unifloral stems, five or six inches high, with scaly bractes of a brownish pink colour, closely embracing the stem. The leaves are radical, heart-shaped, irregularly toothed, petiolate, green above, and below white and downy. The flowers, which droop before they blow, are of a golden yellow colour: the calyx is composed of linear purplish scales: the florets of the ray are numerous, spreading, and twice the length of the disk; the seeds are smooth, generally

abortive: the seed-down is sessile, rough, and white. The whole of this plant possesses a mucilaginous, bitterish taste, but the leaves contain most mucilage; it is readily extracted by decoction in water.

Its demulcent quality has procured it a place in our Pharmacopœias, and it is equal to most of the mucilaginous plants of this country. Dioscorides recommended it to be smoked through a funnel or reed in orthopnæa, cough, &c. It is used on the continent at the present day in coughs, asthma, &c.; like tobacco; also in the form of infusion for similar complaints. Dr. Cullen has employed the decoction and expressed juice with advantage in scrophulous sores, but it does not generally appear to have any influence over such complaints, nor should we be led a priori to expect much benefit from its application, being of so mild and simple a nature. The decoction and infusion are the only useful preparations, which can be procured from it, and they may be taken ad libitum



Anthemis Nobilis

ANTHEMIS NOBILIS—CHAMÆMELUM.

Common Chamomile.

Flores.

*Class XIX. SYNGENESIA. Order II. SUPERFLUA.**Natural Order. COMPOSITÆ.*

Generic Character. Receptacle chaffy. Seed-down none, or a membranous margin. *Calyx* hemispherical nearly equal. *Florets* of the ray more than five.

Specific Character. Leaves bipinnate, linear, acute, subvillous.

THIS perennial plant is a native of England, growing in meadows and dry situations; it is also cultivated in physic gardens, flowering in July and August.

The root is fibrous and spreading. The stems are slender, trailing, branched, and leafy. The leaves are doubly pinnate. The leaflets are small, linear, of a pale green colour, and are generally divided into three segments. The flowers are solitary, terminal and radiated; the calyx is common to all the florets, and is composed of several broad scales. The flowers of the disk are yellow and numerous; if taken collectively they are convex: the filaments are five, having their anthers

united : germen oblong, with a slender style and bifid stigma : the flowers of the radius are white and spreading, and three-toothed.

There are two varieties of Chamomile flowers, the single and double ; but the former is preferred in consequence of the active principle residing in the disk, which constitutes the greater part of the flower in the single variety : they are, however, often employed indiscriminately, without any regard being paid to these distinctions.

Both the flowers and leaves have a grateful odour, and nauseous aromatic bitter taste. But the flowers only are employed medicinally, which have the most grateful odour and taste. They give out their virtues completely to water and spirit, by infusion. By distillation they afford an essential oil, of a brownish yellow colour, having a pungent taste, and the odour of chamomiles, without any of their bitterness. By long boiling we lose all the peculiar flavour of the flowers ; and by inspissating the decoction, they merely yield a bitter extract.

Chamomile flowers are stomachic and tonic. They were formerly in frequent use for the cure of intermittents, and were given successfully in that disease, in the doses of ʒss or ʒj every three or four hours, in the absence of the paroxysms ; but since the cinchona has been introduced into our Pharmacopœia, as well as other efficacious tonics, chamomiles have fallen into disuse in this disease. It was generally necessary to combine it with some astringent, as it tended to relax the bowels. In dyspepsia, flatulent colic, &c. an infusion of chamomile will often prove useful ; it may either be given alone where the stomach is very weak, or combined with some

other bitter or aromatic. A strong infusion of chamomile is a very common and effectual emetic, and one which may be given in the most delicate habits, as it does not leave the stomach in a debilitated state, but, on the contrary, invigorates that organ.

Chamomiles are frequently used in fomentations to abdominal and other inflammations; but we are inclined to think, the relief they afford depends more on the warmth employed, than on the virtues of the chamomiles. They are said to be antiseptic, and useful in phagedenic ulcers. Dose of the powder from ʒss. to ʒiss. Infus: Anthem. Oleum. Anthem. Decoct: Anthem.

ANTHEMIS PYRETHRUM—PYRETHRUM.

Spanish Chamomile or Pellitory of Spain.

Radix.

 Class XIX. SYNGENESIA. Order II. SUPERFLUA.

Natural Order. COMPOSITÆ.

Generic Character. Receptacle chaffy. Seed-down none, or a membranous margin. *Calyx* hemispherical, nearly equal. *Florets* of the ray more than five.

Specific Character. Stalks simple, one-flowered, decumbent; leaves many times pinnated.

THIS plant is a native of the warm countries, more particularly the southern parts of Europe, as Spain, Italy, &c. It is, also, cultivated in this country; flowering in June and July.

The root is tapering, long, fibrous, and externally brown. The stems are simple, trailing and unifloral. The leaves are doubly pinnate, with narrow nearly linear segments, of a pale green colour. The flowers are large, with the florets of the radius, of a white colour superiorly, and purple beneath: those of the disk resemble the *Anthemis Nobilis*.



Anthemis Pyrethrum

The Pellitory root is externally brown, and internally of a white colour; it is about the thickness of the finger, of a firm texture, and breaks with a resinous fracture; it is inodorous, but has a very hot, pungent, durable taste. The pungency resides in a resinous matter, which may be readily extracted, by infusing the bruised root in rectified spirit of wine. The watery infusion possesses scarcely any acrimony. The extracts procured from these infusions differ very much in their pungency, that from the former infusion being very hot, whilst the watery extract is comparatively mild.

This root is a powerful stimulant, but, it is rarely employed, except as a sialagogue, to excite the salivary glands to an increased secretion; and with this view, it is not unfrequently used to relieve tooth-ache, ophthalmia, and some affections of the face and head, as, rheumatism, &c.; and it has been recommended where blood is determined to the head in unusual quantities, but its operation must be very limited in such cases, and it can only be employed as an adjuvant. Dose gr. ij. to gr. x.

ARISTOLOCHIA SERPENTARIA.—SERPENTARIA VIRGINIANA.

Virginian Snake Root, or Birthwort.

Radix.

Class XX. GYNANDRIA. Order IV. HEXANDRIA.

Natural Order. SARMENTACEÆ.

Generic Character. Calyx wanting. Corolla one-petalled, strap-shaped, ventricose at the base. Capsule six-celled, inferior.

Specific Character. Leaves oblong-cordate, smooth; stems weak, smooth and bending; flowers solitary.

THIS Perennial plant is a native of Virginia and Carolina, flowering in August.

The root consists of numerous small fibres, which proceed from a contorted trunk. The stems are slender, crooked and jointed, and nearly a foot in height. The leaves are cordate, entire, three-nerved, pointed, and of a yellowish green colour, standing upon long footstalks. The flowers are solitary, monopetalous, of a purplish brown colour, and proceed from the joints near the root, upon long, sheathed, jointed



Aristolochia Serpentaria

peduncles: calyx wanting: corolla tubular, of an irregular shape; contracted and bent in the middle, globular at the base, and terminating in a triangular lip: the anthers are sessile, and attached to the under side of the stigma; germen oblong, angular and inferior: style very short, supporting a roundish stigma, which is divided into six parts: the seed-vessel is hexagonal and six-celled, containing flat seeds.

Snakeroot is externally of a brown colour, and internally paler; it has a pungent bitter taste, and aromatic odour. Both water and spirit, by infusion, extract its virtues. The decoction and extract are bad preparations, as the essential oil is dissipated in making them. The pungency of the root chiefly resides in the resin; hence, the spirituous extract is most active. By distilling the root in water, we may, sometimes, procure a very small proportion of essential oil, possessing the odour of *Serpentaria*, without its pungency.

This root is a stimulating diaphoretic and diuretic. It is particularly useful in fevers of a low type, as typhus, nervous fevers, &c., where there is a great loss of power, with a small quick pulse: it is more particularly beneficial in the latter stages of these fevers, where it may either be given alone, or combined with other stimulants; heat of skin must not deter us from employing it. In cases of gangrene, where there is much constitutional irritability and debility, the *Inf. Serpentariæ* is an useful medicine, either alone, or united with *Ammonia*, *Opium*, &c. In other cases, where there is much debility, requiring a stimulating tonic, this will be found beneficial, as in confluent small-pox, malignant scarlet fever, &c. It is sometimes administered in full doses, in powder, for intermittents; but, it is not generally applicable in these

cases, as it is too stimulating, and not sufficiently tonic in its operation.

It was a long time employed as an antidote to the bites of serpents, &c.; and from its supposed efficacy in such cases, it has been recommended in malignant fevers, under the idea of its possessing alexipharmic virtues; but, although it may prove beneficial, it is not upon that principle that it acts. The best form in which it can be administered, is an infusion, made by pouring half a pint of boiling water on half an ounce of the dried bruised root, allowing it to stand in a covered vessel till cold: of this infusion ℥j. to ℥iss. may be taken every four or six hours. Dose grs. x. to ℥iss. Official Preparations, Tinct.: *Serpentariæ*, Tinct.: *Cinchonæ* Comp. Elect.: *Opium*.





Quercus Robur

QUERCUS ROBUR—QUERCUS.

Common Oak.

Cortex et Gallæ.

*Class XXI. MONŒCIA. Order VI. POLYANDRIA.**Natural Order. AMENTACEÆ.*

Generic Character. Male. *Calyx* generally five-cleft. *Corolla* none. *Stamens* five to ten.

Female. *Calyx* one-leafed, entire, rough. *Corolla* none. *Styles* two to five. *Nut* coriaceous, surrounded at the base by a persistent calyx.

Specific Character. Leaves oblong, glabrous, sinuate; lobes rounded; fruit oblong.

THIS tree is well known as a native of Great Britain, but it is likewise to be found in most European countries.

The Oak is a large, majestic tree, sending off numerous strong branches, covered with a rough brown bark. The leaves are oblong, deeply sinuated, and forming obtuse lobes: they are of a deep green colour, and shining above, somewhat paler beneath. The flowers are small and yellow: the calyx of the *male* is membranous, bell-shaped, five-cleft; the calyx of the *female* coriaceous, hemispherical, entire, and woody;

the filaments are from five to ten, longer than the calyx, and with large double anthers: germen ovate, with short styles and permanent stigmas. The fruit is an oblong nut, placed in a shallow cup.

A bitter principle resides in every part of this tree; but it is chiefly in the bark, the officinal part. It gives out its virtues both to water and spirit. It contains a considerable proportion of tannin, or astringent matter, which renders it very desirable in tanning leather, to which purpose it is principally applied in this country.

Oak bark has long been esteemed as a powerful and useful astringent and tonic. It was at one time a celebrated remedy for intermittents, and considered as a good substitute for cinchona; but it certainly falls much short of that drug in these cases; for agues will often withstand the oak bark, which readily yield upon administering a few doses of Peruvian bark. It is an useful astringent in obstinate diarrhœa, and chronic forms of dysentery; also in leucorrhœa and other chronic serous discharges, depending, on debility, and relaxation of the secreting vessels. The decoction may also be employed with advantage as an injection, in cases of gleet, leucorrhœa, &c. either alone or combined with alum, where there is much relaxation of the vagina, &c. unaccompanied by inflammation. A similar combination forms a beneficial gargle, in relaxation of the uvula, and soft palate, and in some species of cynanche.

Acorns have a bitter austere taste. They were used by the ancients as an article of food, but they occasioned flatulencies, pain in the stomach, costiveness, and other unpleasant symptoms, from which they fell into disuse. Cattle will feed upon them, and become fat. When roasted and used as a substitute

for coffee, they may prove beneficial in some cases of dysentery, where but few articles of diet can be taken.

Galls, another product of the oak, are powerfully astringent. Those employed in this country, are chiefly imported from Aleppo. Another variety is obtained from the south of Europe, but they are inferior in point of strength, though possessed of similar properties. They are formed by a small insect, called the *Cynips quercus folii*. It first punctures the leaf, and there deposits its egg, and immediately the insect is hatched, it stimulates and irritates the leaf to this peculiar growth; but at length the insect becomes completely buried in this excrescence, which gradually increases to the size of a nut. They should be gathered before it makes its escape, otherwise they decrease in value, as it feeds upon the nut, and renders it much lighter; they should therefore be gathered when green.

Gall nuts are of different sizes, tuberculated, and of a blueish grey colour; they should be heavy and brittle, free from holes, and have a powerfully astringent taste. We may extract their virtues by water or spirit. They are chiefly composed of tannin and gallic acid, on which depends their value.

Galls are seldom administered internally; although from the proportion of astringent principle they contain, we might expect some benefit from their employment in some obstinate cases. They were at one time used in intermittents, but have often failed in effecting a cure. In chronic dysentery, and diarrhœa, they have been used; but we would prefer a decoction in the form of clyster, to giving it by the mouth. When finely powdered and mixed with lard, and a small portion of opium, it forms an excellent ointment for piles, which seldom fails of giving relief.

Although galls are the product of this, and some other species of oak, they are said now to be generally obtained from the *Quercus Infectoria*, which is a tree of diminutive size, possessing more the character of a shrub. Dose of the oak bark, from grs. x. to ʒj. Of galls, grs. x. to ʒj. Official preparation, *Of Galls*, Tinct. Gallæ. *Of the Bark*, Decoct. Quercus.



Pinus Sylvestris

PINUS SYLVESTRIS.

The Wild Pine, or Scotch Fir.

Resina Flava, Nigra et Liquida—Terebinthina Vulgaris et Terebinthinae Oleum.

Class XXI. MONÆCIA. Order VIII. MONADELPHIA.

Natural Order. CONIFERÆ.

Generic Character. Male. *Calyx* four-leaved. *Corolla* none. *Stamens* many. *Anthers* naked.

Female. *Calyx* strobile, with a two-flowered scale. *Corolla* none. *Pistil* one. *Nut* with a membranous wing.

Specific Character. Leaves double, rigid; cones ovate-conical, the length of the leaves, rounded at the base.

THE Scotch Fir, as its name implies, is a native of Scotland, also of the northern countries of Europe.

This tree is tapering, straight, and of considerable height; it is covered with a rough brown bark; the branches are numerous, beset with leaves, and also covered with a brown-coloured bark. The leaves are narrow, linear, entire, concave on one side, and convex on the other; they proceed in pairs from

a sheath, and are of a bright green colour. The flowers are of a whitish colour: the male catkin is spiked, bracteated, having numerous scales on the upper side, and on the under bearing a sessile anther: the female is inferior, often ternate, peduncled, smooth, and of a green colour; it changes into a small strobile, which appears warty, and bears within each scale, two winged seeds.

The wood is used for various purposes in the arts; and several officinal preparations are procured from the tree.

Tar is obtained by cutting up the tree into moderate sized pieces, which are to be placed in an oven of peculiar construction; the heat melts out the tar, which passes off by a channel appropriated for that purpose: it may, therefore, be considered as an impure essential oil, mixed with resin, and some empyreumatic oil generated from the wood itself. The tree is sometimes applied immediately to the fire in the process.

Tar has a strong peculiar odour, and a bitter subacid taste. It is chiefly used for economical purposes, as for the preservation of wood and other substances from the inclemencies of the weather, &c. Water impregnated with tar, has been administered with advantage, in some cases of dyspepsia, occurring in indolent habits; also, in cutaneous affections, both externally and internally: it acts both upon the kidneys and skin. It was once strongly recommended in asthma and other chronic affections of the chest.

Turpentine is procured by making incisions into the lower part of the trunks of trees, which have been previously stript of their bark: in hot weather, the resinous juice exudes more or less freely, according to the heat of the sun; it is collected in holes dug in the earth; and afterwards, by exposure to the

sun and filtration, becomes purified. The incisions are several times repeated during the hot weather.

The *Cones* possess a resinous matter, more grateful than that procured from the trunk. A decoction of the young twigs is employed in the preparation of spruce beer.

This, in common with all the turpentine, has a peculiar aromatic odour, and a pungent bitterish taste; they are all tenacious and inflammable, and are in great measure dissolved by alcohol: all of them are composed of resin and essential oil. This species, i. e. the common turpentine, has a stronger odour, and less pleasant taste than the others: it is of a whitish colour, and most opaque of all the species. Common turpentine is chiefly employed for external purposes, and in the preparation of the *Oleum Terebinthinæ*, which is procured by submitting the turpentine to distillation with water; the oil readily sublimes, and comes over floating on the surface of the water. It has a strong penetrating pungent taste, and peculiar odour; it should be perfectly limpid. It is readily dissolved by alcohol. The best way of giving it is beaten up with yolk of egg, in some distilled water. It is a highly stimulating diuretic, but in consequence of its unpalatableness, it can seldom be kept on the stomach; except where that organ is entirely free from all organic and functional derangement. In doses of ʒfs. or ʒj. it will often very effectually destroy worms in the alimentary canal, and, by its purgative operation, generally expels them. It has been recommended in cases of Hydatids; but, we cannot conceive that it would prove beneficial, unless immediately applied to them; for, although, oil of turpentine is of so diffusive a nature as to impart odour to the urine by merely handling it, we cannot suppose that its

whole virtues are carried into the circulation, it is probably only the volatile aromatic parts. As a stimulating diuretic in an indolent state or paralytic affection of the kidneys, and in calculus it will prove useful. In chronic rheumatism, paralysis, obstinate gleet, leucorrhœa, the oil of turpentine is occasionally administered with benefit. As an external application, it is an useful stimulant in chronic rheumatism, chronic enlargement of the joints, and in any cases requiring external irritation, this oil will be of advantage. The external employment of warm oil of turpentine, at the same time, giving internal stimuli, is an useful plan of treatment in extensive burns. It is a good application in indolent ulcers, where sloughs are to come away.

Resina Flava is left after the distillation of oil of turpentine: but the *Resina Nigra* is the residue after turpentine has been submitted to distillation, without the previous addition of water, in which process more heat is employed, and it is continued for a greater length of time, by which, this resin is partially decomposed. They are only employed in external applications. Dose of the oil, gtt. x. to j. or sometimes ʒfs. to ʒjfs. *Officinal Preparations, Of the Turpentine*; *Oleum. Terebinthinæ*, *Emp: Galbani Comp. Ung: Elemi Comp. Of the Oil*; *Linim. Terebinthinæ. Of the Resins*; *Emp: Ceræ*, *Emp: Picis Comp. Emp: Resinæ*, *Cerat: Resinæ*, *Ung: Resinæ Nigr. Of Tar*; *Ung: Picis Liquidæ*, *Aq. Picis Liquidæ*.



Pinus Larix

PINUS LARIX.

Common Larch Tree.

Terebinthina Veneta.—Resina.

Class XXI. MONŒCIA. Order VIII. MONADELPHIA.

Natural Order. CONIFERÆ.*Generic Character.* Male. *Calyx* four-leaved. *Corolla* none. *Stamens* many. *Anthers* naked.Female. *Calyx* strobiles, with a two-flowered scale. *Corolla* none. *Pistil* one. *Nut* with a membranous wing.*Specific Character.* Leaves fascicled; soft; cones ovate-oblong; margin of the scales jagged.

THE Larch Tree is a native of America, and is also met with in some parts of Europe, and has been cultivated in this country; commonly rising to the height of 40 or 50 feet, sending off slender pendent branches. The leaves are disposed in bundles, and proceed from corrugated sheaths, spreading out considerably; they are linear, entire, and of a bright green colour. The *male* flowers are in lateral, cylindrical catkins: the *female* in erect ovate larger catkins: the cones are about an

inch long, obtuse, smooth, and having smooth scales on the surface.

A sort of manna exudes spontaneously from this species of turpentine; but it is never imported into this country; nor is it collected for any medicinal purpose.

The Venice turpentine exudes spontaneously through the bark; but the greater proportion of it is procured from holes bored in the lower part of the trunk; the juice flows freely, and is collected into a convenient vessel. One tree will yield several pounds annually, for a number of years.

This turpentine is about the consistence of thick syrup, clear, pellucid, of a pale brown colour, strong smell, and pungent bitter taste.

When we wish to administer turpentine internally, it is this species that should be employed, from its being more palatable than the oil, and possessed of similar properties; when formed into pills, it will commonly be retained on the stomachs of most individuals. Or it may be formed into a draught, with mucilage or yolk of egg. It was formerly administered in affections of the chest, viz. ulcerations, and phthisis; but it will generally prove too stimulating a remedy. It is probably a better remedy than the oil in gleet, leucorrhœa, &c. as it can be persevered in for a longer time by patients.

An essential oil, similar to that procured from the Common turpentine, is afforded by this. Dose grs. x. to 3ss.



Pinus Abies

PINUS ABIES.

Norway Spruce Fir.

Pix Arida. Abietis Resina.

Class XXI. MONÆCIA. Order VIII. MONADELPHIA.

Natural Order. CONIFERÆ.*Generic Character.* Male. *Calyx* four-leaved. *Corolla* none. *Stamens* many. *Anthers* naked.Female. *Calyx* strobiles, with a two-flowered scale. *Corolla* none. *Pistil* one. *Nut* with a membranous wing.*Specific Character.* Leaves solitary, nearly square, acute, distichous; branches beneath naked; cones cylindrical.

THIS tree is a native of the northern parts of Europe and Asia.

It is tall, straight and covered with a brownish red bark. The leaves are short, solitary, thickly placed on the branches, slightly carinated, and of a dusky green colour. The *male* catkins are ovate, and scattered in the axillæ of the leaves; the *female* are terminal. The strobiles are long, cylindrical and pendent.

A yellow resin exudes spontaneously from the bark of this tree, which concretes into small irregular masses, formerly called *Thus*. It is brittle and pellucid, having a bitterish acrid taste, with but little smell, it is dissolved entirely by alcohol. This resin is a stimulating remedy, but is only employed for external purposes, as in the composition of plasters, ointments, &c.

Burgundy pitch is also an exudation from this tree; but this is chiefly obtained from incisions made into it: the juice flows freely and adheres to the bark, from which it is readily scraped, it is then purified by being melted in boiling water, and pressed through a coarse cloth. It is of a yellow colour, and firm tough consistence, having rather an agreeable smell, with a bitterish taste. It enters into the composition of plasters, which are often applied to the chest, and other parts, as a counter irritant. It is never taken internally. Official preparations, Emp: Picis comp. Emp: Opii. Emp. Galbani comp. Emp: Cumini.

The other species of *Pinus* are seldom employed: I have therefore thought it unnecessary to describe them.



Croton Eluteria

CROTON ELUTERIA.—CLUTIA ELUTERIA.

Cascarilla or Eleutheria.

Cortex.

Class XXI. MONÆCIA. Order VIII. MONADELPHIA.

Natural Order. TRICOCCEÆ.

Generic Character. Male. *Calyx* cylindrical, five-toothed. *Corolla* five-petalled. *Stamens* ten to fifteen.

Female. *Calyx* many-leaved. *Corolla* none. *Styles* three, bifid. *Capsule* three-celled. *Seed* one.

Specific Character. Leaves ovate-lanceolate.

THIS species of *Croton* is a native of the Bahama Islands, Jamaica, &c.

This tree is several feet in height, having numerous branches especially towards the top, and covered with a brownish coloured bark. The leaves are ovate-lanceolate, elongated towards the apex, entire, of a bright green colour on their upper surface, and paler beneath. The flowers are in axillary terminal spikes; segments of the calix generally five: petals whitish, oblong, and spreading, containing nectaries. The *male* flower has ten subulate filaments, with erect, compressed anthers: germen roundish, having three bifid spreading styles with obtuse stigmas: capsule three-celled, superior, and containing a solitary seed.

It was for some time doubted from what tree the *Cascarilla* was obtained; but it is now generally considered as the bark of the *Croton Eluteria*. The *Croton Cascarilla* does not afford a bark of similar properties to the true *Cascarilla*.

This article is imported into this country in curled pieces or quills, of different sizes ; it is covered with a rough whitish grey epidermis ; and is brownish internally. Its fracture is compact, short, and of a brown colour ; it has an agreeable aromatic odour, with a warm, bitter aromatic taste. When burnt it evolves a very fragrant peculiar odour, which is very grateful in rooms where patients are suffering from foul or gangrenous sores. By distillation it affords a greenish oil, of agreeable odour and pungent taste. Rectified spirit is its most perfect menstruum, but boiling water extracts its aroma and bitterness in part. The *Extractum Cascarillæ* of the *Edinburgh Pharmacopœia*, is a grateful aromatic bitter, possessing all the properties of the bark, in a condensed form.

Cascarilla is a very useful stimulating tonic, and was some years since celebrated as a substitute for the *Cinchona*, in intermittents ; and there is no doubt that it will often set aside the paroxysms as effectually as the *Peruvian Bark* ; but still it is much inferior to it as a general remedy in agues. It is often employed as a warm bitter in flatulencies of the stomach, dyspepsia, and debility of the intestinal canal ; and other cases indicating a want of tone in the system, as where the constitution has been much reduced by long continued purulent discharges, or other indispositions. It was formerly recommended in hæmorrhages ; but it will generally be found too stimulating in such cases : dysentery is another disease in which it was once employed ; but here likewise it will be equally improper, and as it possesses very little astringency, we think it a remedy seldom, if ever desirable in such complaints. Dose grs. x. to ℥ij. *Officinal Preparations*, *Infus: Cascarillæ*, *Extr. Cascarillæ*, *Tinct. Cascarillæ*.



Ricinus Communis

RICINUS COMMUNIS.

Common Ricinus or Palma Christi.

Semina et Oleum Expressum.

Class XXI. MONÆCIA. Order VIII. MONADELPHIA.

Natural Order. TRICOCCEÆ.

Generic Character. Male. *Calyx* five-parted. *Corolla* wanting. *Stamens* numerous.Female. *Calyx* three-parted. *Corolla* wanting. *Styles* three, bifid. *Capsule* three-celled. *Seed* one.*Specific Character.* Leaves peltate, sub-palmate, serrate.

THIS plant is a native of the East and West Indies, Africa, and the warmer countries of Europe. It is very quick in its growth, rising sometimes as high as twenty feet in one year, flowering in July and August. The root is long, thick and fibrous; the stem is round, thick, jointed, furrowed, glaucous at the lower part, and of a purplish red towards the top. The leaves are large petiolate, and deeply divided into seven pointed serrated lobes of a blueish green colour. The flowers are on a terminal spike: in the *male* flower the calyx is divided into five oval, pointed, purplish, segments, inclosing numerous long stamens, which are united at the base: the female calyx is reddish and three-cleft: the styles three, slender and forked at the apex: capsule three-celled, covered with rough spines, and containing three flattened whitish seeds, which are expelled when the seed-vessel bursts.

The seeds are oval, flat, and of a whitish colour, containing mucilaginous and oily matter: they are of an irritating and drastic nature, but are never administered at the present time, as they sometimes occasion violent vomiting and purging, with tenesmus. The only use to which they are applied, is in the preparation of the oil. It is to be procured either by decoction or expression. In the former process, the seeds are first deprived of their cuticle and then bruised in a mortar; after this they are boiled in water, and the oil soon floats on the surface, and this boiling is continued till no more rises. Although a greater proportion of oil is obtained by this mode, than by expression, the latter process is generally adopted, as affording the best and mildest oil; and the former is more likely to become rancid, as is likewise that obtained by expression, when heat is employed; no heat should ever be had recourse to. The seeds at different times afford the oil in very different proportions, but it is not satisfactorily ascertained at what season they yield it in greatest abundance.

Castor oil, when pure, is thick, viscid, either less insipid or of a sweetish taste; and inodorous; it is of a pale straw colour, or sometimes colourless.

It is one of our most useful and effectual purgatives, and may be had recourse to in almost every case, requiring a medicine of this class, unless the stomach be in too irritable a condition to retain it, which not unfrequently happens, in whatever manner it may be concealed by the mode of preparation. It is generally both speedy and certain in its operation, and, being destitute of all acrimony, may be employed in cases where most other purgatives would be improper, as in inflammatory affection of the alimentary canal, &c. where it

acts as an emollient, at the same time that it removes accumulated feces: it is a desirable purgative in Colica Pictonum. In diarrhœa, attended with tenesmus, the Ol. Ricini combined with Tinct. opii, is often very useful, where the complaint is depending on the presence of some irritating substance in the intestinal canal. In dysentery, a similar combination will sometimes be desirable: given in the form of clyster, it is a very useful purgative, where the stomach is incapable of retaining it. Combined with an equal quantity of Tinct. Rhei it will prove an useful adjuvant to other medicines in relieving chronic dysentery. Many other diseases might be enumerated, in which Castor Oil is a valuable laxative.

From its oily nature, many persons are unable to retain it on their stomachs; various means have been resorted to in order to render it palatable, such as combining it with a small proportion of spirit; taking it on the surface of coffee, or mixing it up with yolk of egg, sugar, and some aromatic water: but of all the forms, the best is that with Confect. Amygd. and Cinnamon Water, or some other distilled water, as most agreeable to the palate of the patient; if properly mixed, few will object to take it in this state; the mixture will be rendered more perfect by the addition of a small quantity of Salt of Tartar. Dose ʒij. to ʒiss.

MOMORDICA ELATERIUM—CUCUMIS
AGRESTIS.

Wild or Squirting Cucumber.

Poma recentia.

Class XXI. MONÆCIA. Order VIII. MONADELPHIA.

Natural Order. CUCURBITACEÆ.

Generic Character. Male. Calyx five-cleft. Corolla five-parted. Filaments three.

Female. Calyx five-cleft. Corolla five-parted. Style trifid; gourd opening elastically.

Specific Character. Pomes hispid, cirrhi none.

THE Elaterium is a native of the southern parts of Europe, growing in barren situations; it is also cultivated in this country, but does not survive our winters: it flowers in June and July.

The root is thick and fleshy. The stems round, trailing, thick, rough, and resemble in their growth the common cucumber, spreading in different directions. Leaves petiolate, heart-shaped, large, and rough, of a deep green colour above, and paler beneath. The flowers are axillary, and somewhat resemble in their general appearance those of the common cucumber; segments of the corolla acute, reticulated, and of a pale-yellow colour, with green bases. In the *male* the filaments are short tapering, two having cloven anthers, and



Momordica Elaeagnifolia

the other a simple one. In the *female* the style is short, supporting oblong stigmas, and terminating in an inferior germen. The fruit is oblong, hairy, of a grayish colour, and, if touched when perfectly ripe, throws out its contents to a considerable distance.

The fruit is gathered before the fruit ripens, that none of the juice may be lost. Every part of the plant is very bitter, and acts both as emetic and purgative, but the active principles reside principally in the fruit.

The juice which exudes upon cutting into the cucumbers has an unpleasant, nauseous, bitter taste. When set aside it deposits a thick matter, in which is the chief activity of the plant, and this, when inspissated, constitutes the Elaterium of the shops, or the Extr. Elaterii P. L.

The Extractum Elaterii is a most violent and drastic purgative, even in a dose of a few grains. The purgative operation of it is very commonly attended by nausea, which it seldom fails to excite, and if the dose be too large, very distressing vomiting will be the result. Where an overdose has been taken, we should first attempt to allay the irritability of the stomach by opiates, and give mild diluent laxatives to relieve the griping which it will probably occasion in the bowels.

The dose of this extract will vary very considerably according to the mode and care with which it is prepared. It is to be met with in the shops of very different appearances, from a cream colour to nearly black. The lighter it is, generally the more active. It should be of a light gray colour, brittle, but with difficulty powdered, having no smell, and a bitter taste. As prepared by some chemists a $\frac{1}{4}$ of a grain

will be a sufficiently active dose, whilst the same extract prepared by another, may be taken in doses of 2 or 3 grains without acting more violently. These circumstances should always be remembered, when we are about to administer it, always commencing with the smallest dose, as gr. $\frac{1}{8}$ or $\frac{1}{4}$, gradually increasing it until we arrive at the dose in which it may safely and effectually be given.

It produces a most copious secretion of serous fluid from the bowels, and by that means often gives the greatest relief to dropsical patients, where other medicines have been taken without any benefit. It acts more particularly on the kidneys, when given in small doses, as the tenth of a grain frequently repeated, but if the dose be larger, and we have its full purgative operation, the kidneys are not found to be affected in their secretion by it. By some authors it is considered as a remedy which ought only to be had recourse to in desperate cases, but we may confidently state that when given with caution it may often be employed in dropsical patients. It is advisable to give it in the form of powder with some other mild medicine, as the sulphate or supertartrate of potass. Dose of the Extract, gr. $\frac{1}{10}$ to grs. ij.; but some of inferior quality may be taken in doses of grs. v.



Cucumis Colocynthis

CUMUMIS COLOCYNTHIS.

Bitter Apple or Coloquintida.

Pomorum Pulpa.

Class XXI. MONÆCIA. *Order* VIII. MONADELPHIA.

Natural Order. CUCURBITACEÆ.*Generic Character.* Male. *Calyx* five-toothed. *Corolla* five-parted. *Filaments* three.Female. *Calyx* five-toothed. *Corolla* five-parted.
Pistil three-cleft. *Seeds* of the gourd argute.*Specific Character.* Leaves many-cleft; pomes globular and smooth.

THIS plant is a native of Arabia, Turkey, and also of the islands of Cyprus; it has been cultivated in England, flowering from May to August.

The root is white and branched, striking deep into the ground. The stems are trailing, and beset with rough hairs. The leaves are triangular, variously sinuated, obtuse, and hairy, of a fine green colour on the upper surface, and paler beneath. The flowers are of a yellow colour, axillary, and solitary: the *male* flower has a bell-shaped calyx, with five tapering segments; the filaments are short and inserted into the calyx, bearing linear long anthers, which adhere on the outer side: the calyx and corolla of the *female* resemble those of the *male*, but the filaments are without anthers; the

fruit is roundish, about the size of an orange, of a yellow colour, three-celled, and filled with a pulpy, spongy substance, in which numerous seeds are imbedded.

The fruit is gathered when about to turn yellow, then peeled and dried quickly.

The pulp of Colocynth has a nauseous, bitter, acrid taste, without any smell; it is very light and spongy. It is composed of a considerable proportion of mucilaginous matter, and a small quantity of bitter principle, which is extracted by infusion in water, and this, inspissated, forms an extract of considerable purgative power.

Colocynth in substance is one of our most drastic purgatives, and was known as such to the ancients. It has not unfrequently occasioned violent griping and purging, with bloody evacuations, and also vomiting, with other distressing sensations.

These unpleasant symptoms are best relieved, by exhibiting oily preparations and mucilaginous drinks, both by the mouth and per anum; and if the griping or nausea should continue to distress the patient, opiates must be had recourse to; the greatest irritation is occasioned in the stomach and rectum, from its being retained longer in these parts of the alimentary canal than any other: and where death has succeeded large doses of this substance, an inflammation, or ecchymosis of these parts has been found. From the violence of its operation in substance, it is rarely administered but in that state; the most useful form is the Ext. Colocynth: Comp: (P. L.) where it is combined with substances of a less drastic nature. This extract will act very briskly upon

the bowels, in the dose of grs. x. or ℥j, and will answer every purpose of the Colocynth in substance, without any of its inconveniences. Where there is obstinate constipation, the Colocynth infused in water, and administered as an enema, will often procure evacuations, after other remedies have failed. This mode of giving it is desirable in indolent habits, and persons labouring under apoplexy, or where there is a disposition to this disease; and in other cases where there is considerable torpor of the bowels. It is unnecessary to enumerate all the diseases in which the Extract of Colocynth is useful; for, in almost any case requiring a brisk and effectual purgative, this may be employed. Dose of the powdered Colocynth, gr. j. to grs. viij. Of the Extracts, grs. v. to ʒss. *Officinal Preparations*, Ext: Colocynth. Ext: Colocynth: Comp. Pil: Aloes c̄ Colocynth.

PISTACIA TEREBINTHUS.

Chian Turpentine Tree.

Resina Liquida.

Class XXII. DIOECIA. Order V. PENTANDRIA.

Natural Order. AMENTACEÆ.

Generic Character. Male. Calyx five-cleft. Corolla wanting.

Female. Calyx three-cleft. Corolla wanting. Styles three. Drupe one-seeded.

Specific Character. Leaves unequally pinnate; leaflets ovate-lanceolate.

THIS tree is a native of Chios, North of Africa, and the southern parts of Europe, and has been cultivated in this country.

It is composed of several spreading branches, covered with a smooth bark. The leaves are pinnate, composed of lanceolate, veined, entire, opposite leaflets, with a terminal one. The *male* and *female* flowers are on different trees. The *male* are in an amentum, the calyx is composed of five, small, ovate segments; filaments four or five, very short, with large, brown, erect, quadrangular anthers. The *female* are placed alternately on a common peduncle: the calyx consists of three, small, squamous segments; the germen is ovate, with two or three styles, supporting reflected clubbed stigmas.



Pistacia Terebinthus

The Chio Turpentine is procured by wounding the bark of the trees in several places, in the heat of summer; from them a thin juice exudes, which is collected on flat stones; it soon becomes more consistent, when it is scraped off, and afterwards liquified by the heat of the sun, and strained to separate all impurities from it. The small proportion in which the trees yield it, make it a very expensive article, on which account it is not unfrequently adulterated with the Venice and other Turpentine.

When genuine, it is about the consistence of honey, tenacious, pellucid, of a yellowish white colour, with an agreeable odour, and pungent warm taste.

In its chemical and medicinal properties, the Chio Turpentine resembles the others already spoken of. It is more grateful to the palate; but, from its expensive nature, and the difficulty in obtaining it genuine, it is seldom employed in this country. Dose from grs. x. to ʒss.

HUMULUS LUPULUS.

Common Hop.

Strobili.

*Class XXII. DICECIA. Order V. PENTANDRIA.**Natural Order. SCABRIDÆ.**Generic Character. Male. Calyx* five-leaved. *Corolla* wanting.*Female. Calyx* one-leaved, obliquely spreading, entire. *Corolla* wanting. *Styles* two. *Seed* one, within a leafy calyx.

THE Hop is an indigenous climbing plant, growing in hedges; but it is much cultivated in Kent, Surrey and Essex, and the strobiles are gathered in August and September.

The stems are long, striated, angled, rough and flexible; usually clinging round bodies in their neighbourhood, in a spiral direction. The leaves are petiolate, heart-shaped, serrated, lobed, and of a dark green colour upon the upper disk; they are scabrous with minute prickles; at the base of each leaf-stalk are two interfoliaceous reflected stipules. The flowers are axillary, and furnished with bractes. The *male* are of a yellowish white and drooping; the *female* are in solitary strobiles, ovate and pendulous, composed of membranous scales of a pale green colour.

The Hops are collected before they are quite ripe; at the time when they begin to change colour, and look of a



Humulus Lupulus

brownish green, when they have a most fragrant odour: at this season the plants are cut about 4 feet from the ground, and the poles being removed with them, the strobiles are carefully picked from the plants; and as soon as a sufficient quantity is gathered, they are carried to the kilns for drying; which process should be conducted with great care, to avoid burning; when brown and crisp they are sufficiently dry, and fit for packing; they are sent to market in pockets or bags, containing about $1\frac{1}{4}$ cwt. in each. Hops have been cultivated in England several centuries, and employed as a bitter in the preparation of beer. Soon after their introduction, parliament was petitioned to prevent their employment, from the idea which then prevailed, that they proved injurious to the constitution; but they were afterwards re-employed, and are now the only bitter that ought to be employed by brewers, and enormous quantities are annually used for that purpose.

They have a very bitter, somewhat aromatic taste, with a peculiar aromatic odour. By infusion either in spirit or boiling water, they give out their virtues. The spirituous and watery extracts are bitters of some efficacy.

The Hop has not much attracted the attention of the medical world; but we are of opinion that from its sensible properties, and from a few successful trials which have been made of it, that it may prove a very desirable addition to our list of remedies. It is narcotic, tonic and diuretic. The infusion has been recommended in calculous complaints, from its being considered to possess lithontriptic powers; and this opinion appeared to be sanctioned by the circumstance of

stone being a less frequent disease than it was before this article was employed in brewing.

It is an useful tonic in some cases of dyspepsia, and being rather of an agreeable odour and taste, it will generally agree with the most debilitated and irritable stomachs; and from its tendency to keep the bowels moderately open, we might expect to obtain some benefit from its employment. It will certainly allay the irritability of the heart and arteries in some measure, by its narcotic power, as is evident from its diminishing the frequency of the pulse. As an external application, Hops have long been celebrated in allaying pain and irritability. A pillow composed of hops made warm will often relieve tooth-ache, ear-ache, the delirium of typhus fever, and other painful affections of the head, where there is no congestion about the brain; for in such cases it would be improper. It sometimes occasions a temporary sort of intoxication, which will be succeeded by refreshing sleep. Dr. Watson has observed its anodyne power and its effect in diminishing the frequency of the pulse.

In spring the young tops are sometimes eaten as a substitute for asparagus in the north of England.

A fomentation or cataplasm of Hops will prove useful in some painful affections and irritable sores. Dose of the powder, grs. iij. to ℥j. The extract or tincture are the best forms for administering it. *Officinal Preparations.* *Extractum Humuli, Tinctura Humuli.*



Smilax Sarsaparilla

SMILAX SARSAPARILLA.

Sarsaparilla.

Radix.

Class XXII. DICECIA. Order VI. HEXANDRIA.

*Natural Order. SARMENTACEÆ.**Generic Character. Male. Calyx six-leaved. Corolla none.**Female. Calyx six-leaved. Corolla none. Styles three. Berry three-celled. Seeds two.**Specific Character. Stem prickly, angular; leaves unarmed, ovate, mucronate, three-nerved.*

THIS plant grows in Peru, Mexico, and the Brazils, growing in low moist situations, and flowering in July and August.

The root is perennial, and divided into several straight branches, somewhat thicker than a goose-quill, and three or four feet in length, externally brown, and internally white. The stems are shrubby, long, slender, climbing, and beset with spines. Leaves ovate, pointed, alternate, petiolate, with long tendrils at their base. The flowers stand three or four together on a common peduncle. In the *male* flower, the calyx is bell-shaped, composed of oblong, spreading segments, reflected at their points: the filaments are six, simple, with oblong anthers; the germen of the *female* is ovate, sup-

porting three minute styles, with oblong, reflexed, hairy stigmas: the fruit is a round, three-celled berry, containing two globular seeds.

There are other species of the *Smilax*, from which it is thought the roots are procured. The root is of a farinaceous bitterish taste, without any smell. To water and spirit it communicates its activity. The spirituous extract is somewhat nauseous and bitter, and rather pungent. The extracts procured either from the decoction or infusion in water, are much weaker.

Sarsaparilla was introduced into this country about the year 1530, as a valuable and certain remedy in syphilis, and was recommended upon good authority. Infants who had received the disease from nurses were said to be cured by taking medicine. But from the contradictory statements which we have from different authors, we are disposed to think that the same remedy has not always been employed, but that some other sorts have been accidentally mistaken for the genuine drug. Experience, however, tells us, that it will not eradicate the disease in whatever quantity or form it may be given, and however long continued; the syphilitic virus still remains in the constitution without being at all influenced by the medicine. Its chief utility is in cases where the system has been much reduced by the long continued use, or rather abuse, of mercury: when the patient is brought into that state, where the continuance of mercury would increase the mischief, and probably if persevered in destroy the patient. It appears to improve the general health and strength under these circumstances, and renders the consti-

tution in a state fit for the repetition of the mercury if required. The *modus operandi* of it is very obscure, for we should not be led *a priori* to expect much benefit from a remedy possessed of such comparatively mild properties. It certainly improves the appetite, and relieves other symptoms, without having any marked effect upon the secretions, sometimes slight diaphorems is the result of its employment. It has been recommended, and employed successfully, in cutaneous affections, and in chronic rheumatism; but we should be inclined to attribute the success more to the guaiacum and other medicines, with which it is generally combined, than to the operation of the sarsaparilla. Dr. Cullen is of opinion, that it possesses but little efficacy in any case, when employed alone. Dose of the powder, ℥j. to ʒij. The compound decoction is the best mode in which it can be administered, and it should be taken in doses of a gill three or four times daily. The powder should be taken in milk, or some such vehicle. *Officinal Preparations*, Decoct: Sarsap. Decoct: Sarsap: Comp. Extract: Sarsaparillæ.

JUNIPERUS SABINA.

Common Savine.

Folia.

*Class XXII. DICECIA. Order XIII. MONADEL-
PHIA.*

*Natural Order. CONIFERÆ.**Generic Character. Male. Ament ovate. Calyx
a scale. Corolla wanting. Stamens three.**Female. Calyx three-parted. Petals three. Styles
three. Berry three-sided, irregular, with the
three tubercles of the calyx.**Specific Character. Leaves opposite, erect, decur-
rent; the oppositions closed.*

THIS shrub is a native of the southern parts of Europe, occupying high situations; and for medicinal purposes is cultivated in our physic gardens.

It is commonly about three or four feet high, covered with a brownish bark, and divided into numerous greenish branches. The leaves are small, numerous, opposite, erect, pointed, and of a bright green colour, terminating the younger branches in sharp points. The *male* and *female*



Juniperus Sabina?

flowers are on different plants; the *male* catkin consists of three opposite flowers, placed as a triple row, with a tenth flower at the end; at the base of each flower is a broad scale. The filaments are only in the terminal flower; they are tapering, united at the base, and furnished with simple anthers, which are sessile in the lateral flowers. In the female the calyx is composed of three permanent scales: the petals are stiff, sharp, and permanent: the germen supports three styles with simple stigmas. The fruit is a roundish fleshy berry, of a purple colour, tuberculated, and containing three small seeds.

The leaves of Savine have a heavy, resinous, strong, rather unpleasant odour, and a hot bitter taste. They afford by distillation with water, a considerable proportion of colourless essential oil, possessing the smell and taste of the Savine. Water in a great measure extracts the activity from the leaves, but spirituous menstrua effect this most completely. Both the watery and spirituous extracts possess considerable pungency and warmth, but they retain scarcely any of the odour of the plant.

Savine is a powerful stimulus, acting upon the skin, bowels, and uterus. It has been long celebrated as an emmenagogue; but is not calculated for all cases, for its stimulant operation would render it prejudicial in females of plethoric and sanguine temperaments; whilst, on the contrary, it would be useful to those of indolent and phlegmatic habits. Its operation as a purgative, is chiefly confined to the rectum and large intestines, and by stimulating the hæmorrhoidal vessels, and thus inducing an unusual flow of

blood to them, the uterus becomes secondarily affected. It has been recommended as an anthelmintic.

As an external application to foul ulcers and carious bones, it is employed successfully. It is a medicine, but seldom administered internally, its chief use when made into an ointment is to keep blisters open. Dose of the powder, grs. x. to ʒss. *Officinal Preparations.* *Oleum Volatile Juniperi Sabinæ*, *Extr: Sabinæ*. *Cerat: Sabinæ*.



Juniperus Communis

JUNIPERUS COMMUNIS.—JUNIPERUS.

Common Juniper.

Baccæ et Cacumina.

*Class XXII. DICECIA. Order XIII. MONADELPHIA.**Natural Order. CONIFERÆ.**Generic Character. Male. Ament ovate. Calyx a scale. Corolla wanting. Stamens three.**Female. Calyx three-parted. Petals three. Styles three. Berry three-sided, angular, with the three tubercles of the calyx.**Specific Character. Leaves ternate, spreading, mucronate, longer than the berry.*

THE Juniper is a native of England, growing on heaths and hilly situations, and flowering in May. The berries employed in this country are chiefly imported from Holland and Italy.

It is a low branched shrub, covered with a brownish bark. The leaves are very numerous, narrow, entire, sharply pointed, sessile, and disposed in ternaries. The catkins are axillary and solitary, and furnished with bractes. In other respects the flowers resemble those of the last species: the berries are of a deep colour, and filled with a brownish pulp; they do not perfectly ripen under two years.

The berries have rather a strong peculiar odour, with a sweetish bitter, somewhat pungent taste. They contain essential oil, in different proportions at different times,

which may be readily obtained by distilling the berries in water. When fresh they afford by expression a sweetish aromatic juice. The bitterness is considered to reside in the seed, and the sweetness in the yellow pulp. Both spirit and water will extract their virtues by infusion. Their essential oil is of a yellow colour, pungent taste, and aromatic odour. The extracts have a sweetish bitter taste.

The tops contain some essential oil, possessing properties similar to that obtained from the berries.

Juniper Berries, in their medicinal properties, very much resemble the mild preparations of the Turpentine; they are warm diuretics, and more grateful to the palate than the Turpentine. They are frequently infused in water, and in that form administered as a beverage in dropsies, either alone or combined with Cream of Tartar. It was once used in several other complaints, but from the mildness of its operation it is rarely administered, except as an adjuvant. Hollands is said to be spirit impregnated with the flavour of Juniper Berries by distillation, in which process the oil is sublimed, and becomes dissolved by the spirit. The Spir. Junip. Comp. of the Pharmacopœia is a similar preparation, but more aromatic; this is occasionally used in dropsical cases.

In such cases, when connected with an indolent habit, or in a constitution much reduced by, and habituated to, a free use of spirituous liquors, the infusion may be taken ad libitum. It is made by pouring a pint of boiling-water on 3 oz. of the bruised berries. Official Preparations; Spir. Juniper. Comp. Oleum Juniperi.



Myristica Moschata

MYRISTICA MOSCHATA—NUX MOSCHATA.

Nutmeg Tree.

Myristicæ nuclei Involucrum; Oleum essentielle; Oleum expressum.

Class XXII. DİÆCIA. Order XIII. MONADELPHIA.

Natural Order. OLERACEÆ.

Generic Character. Male. Calyx bell-shaped, trifid.

Corolla none. *Filament* columnar. *Anthers* six or ten united.

Female. Calyx trifid, bell-shaped, deciduous. *Corolla* wanting. *Style* wanting. *Stigma* two. *Drupe*, a nut involved in an arillus, (*Mace*) with one seed.

Specific Character. Leaves oblong, pointed; fruit smooth.

THE Nutmeg Tree is a native of the East Indies, most plentiful in the Moluccas: and it is cultivated in great quantities at Banda.

It rises about thirty feet in height, producing numerous branches; the trunk is covered with a dark brown bark, and the young branches have a greenish bark. The leaves are elliptical, pointed, undulated, entire, obliquely nerved, and placed alternately on short footstalks; their colour is a bright green on the upper surface, and grayish beneath, having an aromatic taste. The flowers are small and placed on axillary peduncles. The male and female are upon

separate trees. In the *male* flowers, the filaments are short, joined into one bundle, supporting long lineal anthers, and inserted into the receptacle. In the *female* the germen is superior, oval, covered with a style which is terminated by two stigmas. The calyx of the female and male is bell-shaped, and divided at the brim into three small teeth. The fruit is an oval berry, with a fleshy tough covering, which opens and displays the mace, closely investing the shell of the nutmeg.

There are two sorts of nutmegs, one of a spherical form, called the *male*, and another the *female*; the latter is preferred as being the most aromatic.

The Nutmeg is said to be in part propagated by doves and other birds, feeding upon the fruit and voiding it in a soft state, but little altered in its essential properties. The trees are, however, principally raised from seeds sown by the natives, in convenient shady situations, where they are sheltered from the winds. They begin to bear fruit in about six, and arrive at perfection in about nine years. In consequence of the different times at which the flowers appear, and the length of time required for ripening the fruit, which is nine months, there are three harvests annually. When gathered, the exterior covering is immediately removed, and the mace and nutmeg are carefully dried in the sun; the latter are then thrown into a mixture of lime and water, and afterwards carefully cleaned and dried; whilst the Mace is immediately exposed to the sun to dry. Previously to being packed for exportation, it is sprinkled with salt and water, in order to preserve it from putrefaction and insects.

Nutmegs are of a dark dense texture, but may be readily cut with a knife, which discovers yellowish brown veins, and sometimes the essential oil. They have an agreeable aromatic odour, and a warm grateful taste. By expression they yield a yellow oil, of an aromatic odour and taste; which, by keeping, becomes butyraceous, and of a brownish white colour; it has been improperly termed oil of mace: sometimes an artificial compound of fat, spermaceti and some essential oil is substituted for the genuine. An inferior description of oil is imported from Holland, in flat solid cakes, of a pale colour, and much inferior to the former article.

By distillation with water, they yield a very fragrant essential oil, of a pale straw colour, possessing all the properties of the nutmeg; a fatty substance floats on the surface of the water, which has scarcely any smell or taste. Alcohol, by infusion, extracts the active parts of the nutmeg.

Mace is in thin flexible pieces, of a yellowish colour, with an aromatic odour, and a warm agreeable pungent taste, similar to the kernel. It yields, by expression, an oil of less consistence than *that* obtained from nutmegs. By distillation we may also procure an oil, retaining the qualities of mace.

These spices are in frequent use for culinary purposes, and but seldom employed as medicines; of the two, mace is generally preferred, being more grateful and less heating than nutmegs, and the latter occasion very unpleasant symptoms, if taken in large quantities, such as vertigo, oppression at the chest, stupor, and sometimes complete insensibility;

depending on the sedative operation of the drug. As the activity resides in the essential oil, it is of consequence that we procure the genuine nuts, for it not unfrequently happens, that they are submitted to distillation previous to being offered for sale; sometimes they are infused in spirit. On account of the warm and stimulating nature of these spices, they are frequently conjoined with other medicines in languid habits, flatulencies, in some chronic affections, as rheumatism, and certain descriptions of paralysis.

The Expressed Oils are occasionally employed as external applications. The Essential Oils are used either externally or internally as stimulants. Dose, of Mace and Nutmegs, from grs. v. to grs. xv. Of their Essential Oils, ℥ ij. to jv.



Veratrum Album

VERATRUM ALBUM—HELLEBORUS
ALBUS.

White Hellebore, Sneezewort.

Radix.

Class XXIII. POLYGAMIA. Order I. MONÆCIA.

Natural Order. CORONARIÆ.

Generic Character. Hermaphrodite. Calyx wanting.
Corolla six-petalled. Stamens six. Pistils three.
Capsules three, many sided.

Male ditto. Rudiment of the pistil.

Specific Character. Raceme more than decom-
posed ; corollas erect.

WHITE Hellebore is a native of the mountainous parts of Germany, Italy, Austria, Switzerland, &c.

The root is about an inch thick, fleshy, and beset with numerous fibres. The stem is straight, thick and cylindrical, usually about four feet high. Leaves oblong, ovate, large, entire ; sulcated by several ribs, and embracing the stem at the base ; they are of a yellowish green colour. The flowers are in long, terminal, branched spikes, of a greenish colour and accompanied with a lanceolate bracte. The petals are six, persistent, and lance-shaped ; filaments six, closely surrounding the germen, and supporting quadrangular anthers. In each flower are three oblong, erect, germens, with short styles, and expanding stigmas. Capsule oblong, compressed, and containing many seeds.

Every part of this plant is very acrid, and even poisonous, if taken in sufficient quantity ; proving destructive both to

man and brute. The roots however are the only officinal parts.

White Hellebore root, when fresh, has a disagreeable odour; but upon being dried this is dissipated: the taste is bitter, nauseous, and acrid; it is externally of a brownish colour, and internally whitish. Water, by infusion, extracts a considerable proportion of acrimony from the root, but this preparation is less violent in its operation than the root in substance. The tincture is less active than the powder. The extracts are very acrid, more particularly that obtained by inspissating the tincture.

Several examples are to be found in authors of the violence with which Hellebore acts when taken into the stomach, or applied to wounded surfaces. Even in small doses it occasions heat in the throat and fauces, cardialgia, nausea, and vomiting with purging; sometimes the vomiting will be most distressing, and the purging accompanied with discharge of blood: these symptoms will be succeeded by tremors, vertigo, hurried respiration, irregular pulse, cold perspirations, faintings, convulsions, and death. When patients are destroyed by it, the stomach and intestines present an appearance somewhat inflamed, but not sufficient to account for death, which is probably caused by the violent shock which the nervous system has undergone.

These unpleasant symptoms make their appearance in a shorter time, and are more violent when the poison is applied to a wounded surface, than when taken into the stomach.

Where unpleasant symptoms result from this medicine having been swallowed, we must first administer diluents, to assist the expulsion of the poison; at the same time the pa-

tient should take freely oily and mucilaginous fluids, to lubricate the villous surface of the intestines, so as to guard them against the acrimony of the Hellebore. Emollient enemas should also be administered; and if the vomiting should continue very distressing, small doses of opium may be given from time to time, to allay the irritability of the stomach, &c.

Hellebore root is a violent emetic and cathartic, even in small doses. It was employed by the ancients in many diseases, as Mania, Melancholia, Hydrops, Lepra, &c. but from the violence of its operation, and from the dangerous symptoms which sometimes succeeded its exhibition, they were induced to lay it aside. It has been given with apparent success in epilepsy, and it is said to have relieved gout. Greeding employed it in several cases of mania, but with very different results, a few only were cured, whilst the majority remained unrelieved. Its chief use at the present day is as an external application in cutaneous affections, especially scabies; it may be either mixed with lard, or used in the form of decoction; and it is very desirable to have an application which can be relied on, in cases where sulphur cannot be conveniently employed. In some cases of Lepra-Pityriasis, &c. the internal exhibition of the tincture has been attended with benefit. Dose of the powder, grs. ij to grs. v. *Officinal Preparations, Decoctum Verati, Tinctura Veratri, Unguentum Veratri.*

STALAGMITIS CAMBOGIOIDES—GAMBOGIA GUTTA.

Gamboge.

Gummi Resina.

Class XXIII. POLYGAMIA. Order I. MONŒCIA.

Natural Order. TRICOCCÆ.

Generic Character. Hermaphrodite. Calyx four-leaved. *Corolla* four-petalled. *Stamens* thirty, inserted into a fleshy quadrangular receptacle. *Style* thick. *Stigma* four-lobed. *Berry* one-celled, crowned by the style, three-seeded.

Male. Calyx, Corolla, and Stamens hermaphrodite.

THIS tree is a native of Spain and Ceylon.

It is of moderate height. The leaves are ovate, opposite, entire, petiolate, rigid, and of an obscure green colour. The *male* flowers are either on a distinct branch or intermixed with the hermaphrodite, and arising from the axillæ of the leaves; segments of the calyx ovate, the two exterior are smaller than the interior: the petals are spreading, ovate, coriaceous, much larger than the calyx, and having ciliated margins: filaments are about thirty in number, proceeding from a fleshy quadrangular receptacle, and supporting club-shaped, quadrangular, fertile anthers; in some there is the rudiment of a style; stigma echinate, unequal, and sterile. *Hermaphrodite* flowers are verticillate, either proceeding from



Stalagmites Cambogioides

the axillæ of the leaves, or from the joints of the smaller branches, intermixed with the *male* flowers, but sometimes in opposite gems: the calyx, corolla, and stamens resemble the *male*; germen globular, with a short solitary style; stigma three or four lobed, lobes patent, obcordate, persistent: berry globose, glabrous, whitish or rosaceous, crowned by a short style and lobed stigmas; the seeds are oblong, triangular, and white.

Gamboge is procured by making incisions into the bark of the tree, from whence the juice exudes; and by exposure soon becomes solid; it is sometimes obtained by breaking the young branches and leaves, from which it is obtained in drops.

It is a gum resin, of a reddish-yellow colour, brought over in large cakes or rolls, flexible, somewhat pellucid, and having a shining fracture; when moistened it is a beautiful bright yellow. It has no smell: and on being taken into the mouth is at first destitute of taste, but upon being kept there a short time, shews some degree of acrimony. Rectified spirit dissolves a great proportion of gamboge; water also will take up nearly as much, but the resin will merely be mechanically suspended, and if allowed to stand, is precipitated to the bottom of the vessel. A solution of potass in water will dissolve it completely, forming a blood red precipitate.

Gamboge is a very drastic purgative, and frequently occasions vomiting. It is very rapid in its operation, and should be administered in small and repeated doses, to avoid unpleasant symptoms, which might otherwise arise, as griping, tenesmus, vomiting, &c. Administered in this manner, it is very useful in dropsies, and has long been considered a

powerful hydragogue, procuring a copious flow of watery evacuations; also acting upon the kidneys. Where there is an obstinate state of constipation, gamboge will generally prove an effectual purgative: it is seldom administered alone, but either combined with some aromatic, or another less drastic purgative. It will often expel tæniæ. It may be advantageously combined with calomel, or supertartrate of potass, which will assist and regulate its operation. Dose, grs. ij. to grs. x. Officinal Preparation, *Pil. Cambogiæ compositæ*.



Acacia Catechu

ACACIA CATECHU—MIMOSA CATECHU—
TERRA JAPONICA.

Catechu.

Extractum e Ligno.

Class XXIII. POLYGAMIA. Order I. MONÆCIA.

Natural Order. LOMENTACEÆ.

Generic Character. Hermaphrodite. Calyx five-toothed. Corolla five-cleft, or forming five-petals. Stamens 4 to 100. Pistil one. Legume bivalve.
Male. Calyx five-toothed. Corolla five-cleft. Stamens 4 to 100.

Specific Character. Spines stipular; leaves bipinnate in many pairs: glands of the partial ones solitary: spikes pedunculated, axillary, and situated in pairs or threes.

THIS tree is a native of Bengal, more especially the province of Bahar, occupying mountainous situations, and flowering in June.

It is a small tree, seldom rising higher than ten or fifteen feet, and is about a foot in diameter, covered with a rough brownish bark; towards its summit dividing into many pubescent branches. The leaves are alternate on the younger branches, and composed of from fifteen to thirty pair of partial pinnæ, each of these supports from forty to fifty pair of

straight linear leaflets ; a small sessile gland is placed upon the petiole, situated between the base of each pair of pinnæ : at the base of each leaf are two short, recurved spines. The flowers are produced in yellow close spikes, generally in pairs, proceeding from the axillæ of the leaves ; calyx divided into five pointed segments : corolla consists of five whitish petals, and is twice the length of the calyx ; filaments twice the length of the corolla, supporting roundish anthers. The fruit is a brown, compressed, lanceolate pod, containing several roundish seeds.

The extractive matter called catechu, is procured from the substance of the tree, after the bark has been removed. This interior part of the tree is of a darker brown colour than the bark ; it is cut into small pieces, and then boiled in a quantity of water, to obtain a decoction of some considerable strength, this is strained and evaporated until it assumes a considerable degree of consistence ; the evaporation is afterwards completed by the sun, and when of a firm dense texture becomes fit for sale. From the careless manner in which the process is generally conducted, we frequently meet with impurities, which are of an earthy nature.

It is brought to us in irregular masses, of a brownish-red colour, and having a shining fracture : its taste is bitter and astringent, with some degree of sweetness ; but it is destitute of odour. There are two kinds distinguished in the shops, the pale and dark ; but they chiefly differ in appearance, for in sensible and medicinal properties they are very similar.

This extract is chiefly composed of tannin, extractive matter and mucilage.

The products of other trees are sometimes mixed with the genuine drug, and offered for sale in our markets.

Catechu is a valuable astringent, and very beneficial in certain descriptions of dysentery and diarrhœa, where these diseases are of long standing, and depend on debility of the intestines; but if any disposition to inflammation be present, or there be any disease of the liver, &c., it would be highly improper. In other cases requiring astringents this may generally be used, as in leucorrhœa, gleet, &c.; relaxations of the soft palate and uvula. It has been said to relieve dyspeptic symptoms, and assist the process of digestion, and also to correct the fœtor of the breath, and aphthous sores about the tongue and fauces. It has been applied externally to ulcers with some benefit. Dose grs. x. to ʒij. *Officinal Preparations, Infusum Catechu, Tinctura Catechu, Extractum Catechu, Extractum Catechu Compositum.*

ACACIA VERA-MIMOSA NILOTICA.

Egyptian Mimosa, Acacia Gum, or Gum Arabic.

Gummi.

Class XXIII. POLYGAMIA. Order I. MONŒCIA.

Natural Order. LOMENTACEÆ.

Generic Character. Hermaphrodite. Calyx five-toothed. Corolla five-cleft, or composed of five-petals. Stamens 4 to 100. Pistil one. Legume bivalve.

Male. Calyx five-toothed. Corolla five-cleft, or formed of five-petals. Stamens 4 to 100.

Specific Character. Spines stipular, spreading; leaves bipinnate, the outer partial ones separated by a gland; spikes globular and peduncled.

THIS tree is common in Arabia and Egypt, growing chiefly in sandy soils; also, in many parts of Africa.

This species of *Acacia* is of small size, and covered with a gray-coloured bark, which is of a purplish colour on the branches. The leaves are alternate, bipinnate, and composed of several pairs of opposite, partial pinnæ, with a small gland between the base of each pair. There are numerous pairs of elliptical smooth leaflets: on each side the base of the leaves are two long, diverging white spines. The flowers are dispersed in a globular form, supported on slender eduncles, and proceeding from the axillæ of the leaves



Acacia Vera

four or five together : the calyx is bell-shaped, and divided into five small segments : corolla consists of five narrow, yellow petals : the filaments are numerous, capillary and support roundish, yellow anthers ; germen conical, with a slender style and simple stigma : the fruit is a long flattened pod, containing brown seeds.

Gum Arabic exudes spontaneously from the bark of the tree in hot weather ; when it first flows it is perfectly liquid, but soon hardens by exposure to the sun and air : when the season is not sufficiently hot, it is found necessary to make incisions into the bark for the escape of the juice. The gum is collected in December. Those trees yield the gum in largest proportions which are sickly, and a hot season is also favourable to its production.

Gum Acacia of the shops is in irregular pieces of various sizes ; hard, brittle, pellucid, and breaking with a shining fracture, and when pure, colourless ; it is insipid and inodorous. An inferior article is to be met with in the shops, which is much darker, has a bitterish taste, and is of softer consistence.

Pure gum is completely soluble in water ; but neither oil nor spirit have any influence upon it. With twice its weight of water it may be converted into a thick, uniform, transparent mucilage, which is very useful for many pharmaceutical purposes, such as rendering oils, balsams, resins, &c. miscible with water ; it is also useful in the preparation of lozenges, and for a variety of other purposes, being a convenient vehicle for many medicines, which require to be guarded or suspended by some mucilaginous fluid.

This gum is possessed of considerable nutritive power, and in the season when it is collected, it always forms the chief article of food amongst the natives: and when the drug is plentiful, it often constitutes an article of diet, especially when travelling. It contains sufficient nourishment to support the constitution for a considerable time.

It is an useful demulcent; and, when dissolved, is often employed as a beverage in strangury, and other affections of the urinary organs; but the relief is not very decided, unless a large proportion of water be taken at the same time, which would lead us to attribute as much, or more to the water, in the cure, than to the gum. Its beneficial operation is much more decided in affections of the alimentary canal, where we wish to dilute or entangle any acrid matter, which may have been swallowed; and in cases where an acrid bile is secreted, exciting much irritation in the bowels, the mucilage of acacia, by diluting it, will diminish its acrimony, and relieve the colicky griping pains which it occasions. It is an useful vehicle for medicines which are often required in dysentery, and other diseases of the bowels, whether taken by the mouth, or injected per anum. In coughs, &c. connected with tickling and irritation about the fauces, it will be a serviceable adjunct. Dose ʒj. to ʒij. Officinal Preparation, *Mucilago Acaciæ*.



Fraxinus Crassifolia

FRAXINUS ORNUS.

Flowering or Manna Ash.

Succus Concretus.

Class XXIII. POLYGAMIA. Order II. DIÆCIA.

Natural Order. SEPIARIÆ.

Generic Character. Hermaphrodite. Calyx none, or four-parted. Corolla none, or four-parted. Stamens two. Pistil one. Capsule one-seeded, lanceolate.

Female. Pistil one, lanceolate.

Specific Character. Leaves ovate-oblong, serrate, petiolate; flowers with corollas.

THIS species of Ash is a native of the southern parts of Europe, more especially of Calabria and Sicily: it is likewise cultivated in England, flowering in May and June.

This tree generally rises to about twenty feet, is much branched, and covered with a smooth grayish bark. The leaves are pinnate, petiolate, opposite, and composed of two or three pair of leaflets, which are opposite, serrated smooth and pointed at each extremity, and of a bright green colour. The flowers are in close spikes at the extremities of the young shoots, placed in pairs, and nearly the length of the leaves; the segments of the calyx are ovate and pointed; the petals are linear, longer than the stamens; and of a white colour: the filaments are tapering and spreading, supporting

erect anthers: germen oval and smooth, with a short style and notched stigma.

The white sweet substance, called *Manna*, exudes spontaneously from the trunk and branches of the tree in hot weather, and very soon concretes into the consistence in which we meet with it. But as the whole of the juice does not exude spontaneously; it is the practice to wound the trees when they are ten years old, (if older it is preferable) and from these incisions the juice flows very freely either concreting on the bark of the tree, or flowing to the ground, where it should be collected on leaves or straw, to prevent its becoming mixed with impurities, which would render it less saleable. The incisions are commenced at the lower part of the tree, proceeding upwards; they should be made in dry and calm weather. The manna harvest begins in June, and continues generally three months.

This substance is procured from other species of the *Fraxinus*, more especially the *F. excelsior* and *F. rotundifolia*, although not inferior to the former, it is not afforded in such large quantities. From other trees and vegetables, a sweet milky juice often exudes, which concretes into a substance resembling manna, and possessing all its properties.

It is probable, that the substance upon which the Israelites fed was similar to our manna, and that it exuded from the different trees by the heat of the sun, and concreted into masses upon the ground, affording considerable nourishment.

Manna, as imported into this country, is in oblong, irregular masses, of various sizes, very friable and light, moderately dry, of a whitish pale yellow colour, and somewhat

transparent. There is an inferior sort, softer and much darker.

The genuine substance is sometimes adulterated with a factitious article, composed of sugar and starch, or honey and flower, with some other substances; but these frauds may easily be detected by the weight and general appearance of the article, by an unexperienced person.

Manna is inodorous, having a sweet and somewhat bitter taste; it is soluble in water, more especially if hot, and also in spirit by the aid of heat. Its properties seem chiefly, if not wholly, to depend on the saccharine matter, which it contains in a large proportion. The fresh juice, as it runs from the tree, has more bitterness than when concreted. It is a mild and gentle laxative, and on account of its pleasant flavour, children can easily be prevailed upon to take it; but from the large quantity which is required to produce the desired effect, it is seldom given alone, except to very young children, but is commonly combined with some saline and more active purgative, the unpleasant taste of which it will in some measure cover. Dose ʒij. to ʒi. It enters into the preparation of the *Confectio Cassiæ*.

FICUS CARICA.

Common Fig Tree.

Fructus conditus.

 Class XXIII. POLYGAMIA. Order II. DICECIA.

Natural Order. SCABRIDÆ.

Generic Character. Common receptacle turbinate, fleshy, converging, concealing the florets, either in the same or a distinct individual.

Male. *Calyx* three-parted. *Corolla* none. *Stamens* three.

Female. *Calyx* five-parted. *Corolla* none. *Pistil* one. *Seeds* covered by a permanent, closed, somewhat fleshy calyx.

Specific Character. Leaves palmate.

THIS tree is a native of Asia, growing wild also in Sicily, Italy, and other southern parts of Europe, flowering in June and July: it is also cultivated in England.

The fig tree generally rises to about fifteen feet; it is covered with a brownish-coloured bark, and is divided into numerous branches. The leaves are large, succulent, petiolate, alternate, and deeply divided into three or five lobes: they are of a dark green colour on the upper surface,



Ficus Carica

pale green beneath, and somewhat downy. The fruit, in which both the male and female flowers are contained, is nearly sessile: it appears before the leaves; is turbinate, umbilicate at the top, and of a fleshy and soft consistence; the flowers are numerous; the *male* are at the superior part of the receptacle, and at the inferior part often mixed with the female.

This tree has been esteemed from the earliest ages, as well for the shelter which its foliage affords from the scorching rays of the sun, as for the delicious and nourishing nature of its fruit. It was so celebrated in ancient times, as to be consecrated to the gods, and amongst other absurd notions respecting its origin, it was thought to have been first planted by *Bacchus*.

Those figs having been observed to ripen soonest, which had been perforated by an insect, the ancients endeavoured to promote this by keeping a supply of such insects in the neighbourhood, which perforated the fruit, and effected the desired object.

As the ripe figs cannot be long kept, before they undergo a degree of fermentation, they are speedily dried, either by the sun, or in an oven; but the latter mode is preferred, as it effectually destroys the insects, which would otherwise live and feed upon them. When thoroughly dried, they are closely packed in chests for exportation.

As we receive them they are in a compressed, roundish form, of a brown colour, and coated with a sweet substance like raw sugar: they contain internally a sweet, viscid, brownish pulp, and several yellowish seeds.

The fruit in its unripe state, and the juice which exudes from the trees, are nauseous and acrid, but upon ripening become bland and sweet.

Figs are a very nourishing fruit, and in the south of Europe are often taken as an article of diet, and they prove of a very fattening nature; here the saccharine matter is the chief article. They are chiefly employed for dietetic purposes, and from their agreeable flavour, are not unfrequently added to nauseous purgatives, &c. And from the mucilage they contain, conjoined with the sugar, are agreeable demulcents. Boiled and well beaten up, they form an useful suppurating cataplasm; toasted fig is a well-known remedy in gum boils. Dose ad libitum.



Lichen Islandicus

LICHEN ISLANDICUS.

Iceland Moss, Eryngo-leaved Liverwort.

Class XXIV. CRYPTOGRAMIA. Order V. ALGÆ.

Natural Order. ALGÆ.

Generic Character. Fructification in tubercles, inverted in their proper cortical receptacles, on a variously formed and constructed gourd.

Specific Character. Foliaceous; leaves ascending, laciniate: margins elevated and ciliate.

LICHEN is a native of the northern parts of Europe, especially Iceland, growing in mountainous situations.

This species is only a few inches in height and has an irregular bushy appearance. The leaves are tough, membranous, irregularly divided into blunt lobes, turned at the margins and beset with short strong hairs; the parts of fructification are on the lobes of the leaves, and are of a brownish colour.

Iceland Moss is employed in some countries as an article of food, and when deprived of its bitter principle by repeated maceration in water, it will by decoction yield a considerable proportion of nutritive mucilaginous fluid, which may either be taken alone or in combination with milk, which is generally preferable. It is inodorous, and has a mucilaginous slightly bitter taste; its properties, which depend entirely on the

mucilage it contains, may be completely extracted by water. Previous to exhibiting the Iceland Moss in decoction, either in milk or water, the bitter principle should be extracted from it, unless we wish it to act as a mild tonic.

It has been extolled as a valuable remedy in phthisis, and various authors have given testimony of its efficacy in this disease: modern practitioners do not however find that it cures the disease, although beyond a doubt the decoction is an useful beverage in such cases when combined with milk. In dysentery and diarrhoea it has long been celebrated, and we do not hesitate in saying that it will often prove a valuable remedy in these diseases, especially if they be connected with debility of intestines, &c. In some other affections, as hæmoptysis, chronic catarrh, &c. it has also been recommended. The employment of the Moss is chiefly as a nutritive mucilaginous fluid; for the virtues which were once ascribed to it were quite visionary. Dose of the Decoction, Oj. to Oij. daily. Officinal Preparation, Decoctum Lichenis.



Tamarindus Indica

TAMARINDUS INDICA.

Tamarind Tree.

Fructus.

Class XVI. MONADELPHIA. Order I. TRIANDRIA.

Natural Order. LOMENTACEÆ.

Generic Character. Calyx four-parted. Petals three.
Nectary of two short bristles under the filaments.
Legume pulpy.

THE Tamarind Tree is a native of the East and West-Indies, and some other warm situations. It is of large size, and has beautiful spreading branches. The leaves are pinnate, alternate, composed of 16 pairs of sessile leaflets, oblong, obtuse, entire, of a bright colour and downy. The flowers are papilionaceous, and appear about October, in clusters on the lateral part of the stalk; calyx deciduous and of a straw colour; the petals are also yellowish, streaked with red veins; they are ovate, concave, acute, and indented; filaments purplish, bearing incumbent brownish anthers; the pods are oblong, compressed, and of a brown colour when ripe, containing several flat, shining seeds, lodged in a dark coloured pulpy matter.

The pods are gathered in July and August, at which time they are perfectly ripe; they are deprived of the exterior

covering, placed in casks, and have syrup poured upon them, which fills up all the interstices, and is a most effectual way of preserving the fruit from fermentation, or becoming mouldy. There is said to be some difference between the fruit, as prepared in the East and West Indies; this however is not material, and not connected with its essential properties. When first gathered, they are much more tart, than when they reach us, for some of the saccharine matter in which they are placed, attaches itself to them. Tamarinds are always very sweet, and sometimes so much so, as entirely to conceal their peculiar, agreeable tartness.

Tamarinds are comprised of saccharine matter, mucilage, creme of tartar, malic, citric, and some other vegetable acids, besides feculent matter. They are to be considered among articles of diet, rather than ranked as medicines, for although of a very agreeable nature, and very useful as adjuncts, they are not considered as possessed of any particular virtue in the cure of disease. Made into a drink, by pouring boiling water upon them, they afford a very agreeable beverage in febrile and inflammatory complaints. When taken freely, they tend to keep the bowels open, and with this view may be given to children with advantage, where nauseous medicines are so frequently rejected. It is likewise often conjoined with other remedies, to add to their efficacy, and correct any unpleasant flavour. Dose, ad libitum. *Officinal Preparation, Elect. Sennæ. Infusum Tamarindi c Senna.*

SAGAPENUM.

Sagapenum.

Gummi Resina.

THE plant which yields this drug is not known; but it is thought to be a species of the *Ferula*.

This gum-resin is imported from Smyrna, Alexandria, &c. in large masses of a brownish colour, sometimes yellowish and slightly pellucid, generally too soft to break with a shining fracture; tears of a whitish colour are sometimes in the dark coloured masses: by warmth it is rendered plastic: it has a very disagreeable smell, like assafoetida, with a hot and acrid disagreeable taste.

Sagapenum is a medicine possessed of similar properties with the assafoetida: it is a warm anti-spasmodic and emmenagogue; and may be employed in any cases where that remedy would be proper; it might be very well dispensed with, without any detriment to our Materia Medica, for it is seldom used. Dose gr. x. to 3ss.

KINO.

Kino.

Gummi—resina.

DIFFERENT opinions are entertained respecting the name and species of tree which yields this resin. By some it is considered as a species *Eucalyptus*, by others the resin is thought to be the product of the *Butea Frondosa*. Naturalists have not agreed from what the true Drug is obtained; we are therefore unable to describe or figure it.

It is a gum-resin of a brownish red colour; in irregular pieces of various sizes, having a shining and resinous fracture; it is inodorous; and has a slightly astringent taste.

Different kinds of Kino are to be met with in the shops, which do not exactly resemble each other in their sensible properties; but they all possess a degree of astringency; on which account it is introduced into our *Materia Medica*.

It is a very useful astringent, and one possessed of no stimulating properties; and is not unfrequently used in chronic diarrhœa, and in menorrhagia, leucorrhœa, &c. &c. It may be used either in substance, made into pills, or dissolved in proof spirit. Dose, gr. x. 63ss. Official Preparation: *Tinctura Kino*.

MYRRHA.

Myrrh.

Gummi Resina.

THE Tree yielding this plant is said to grow on the eastern coast of Arabia Felix. Although a drug of the greatest antiquity, we are not yet acquainted with the tree which affords it; various conjectures have been formed concerning it, but nothing satisfactory is yet ascertained.

We receive it both from Turkey and the East Indies.

It is a gum-resin of an agreeable fragrant odour, and a bitter somewhat aromatic taste. It is commonly in irregular shapes of different appearances, some being nearly white; whilst other portions are nearly black: it should be of an intermediate colour, that is, a brownish red, or yellowish transparent, and brittle: it breaks with a resinous fracture.

Proof spirit is its proper menstruum, being only partially soluble either in water or rectified spirit. Saturated with water, it forms a whitish emulsion: here the whole of the medicine is present; the gum suspending the resin in the water.

It is a mild, rather stimulating tonic, and expectorant. It is a remedy very frequently employed in phthisical patients, and, where there is no inflammatory tendency about the chest, its exhibition will be attended with benefit; but should it aggravate the cough, increase the frequency of the pulse, or

give rise to any febrile irritation in the system, we must desist, and have recourse to milder remedies. It is frequently given as a stimulating tonic in amenorrhea, chlorosis, and without any regard being paid to the general state of the patient, as to plethora, &c.; for in such a case, where the disease is connected with fullness of the vessels, it would be highly improper to have recourse to a medicine of this description; but where there is general debility of the system it is an useful tonic, whether in this or other diseases. It should either be given in the form of pills or emulsion, the tincture being too stimulating in almost every instance. Dose, grs. x. to ʒl. Official Preparations, Pil. Aloes cum Myrrha, Pil. Ferri cum Myrrha, Tinct: Aloes et Myrrhæ.

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